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Berndt.

Some Aboriginal Children's Games. By R. M. Berndt, *Honorary Assistant in Ethnology, South Australian Museum.*

INTRODUCTION.

The following observations on several native children's games were made during an expedition to Ooldea, south-western South Australia, in August, 1939. The expedition was conducted under the auspices of the Board for Anthropological Research of the University of Adelaide.

Work was carried out at the Ooldea Soak (*Juldi*), which is four miles to the north of Ooldea siding on the east-west railway line.

The local natives are members of the 'Anta'kirinja tribe, although representatives of the Pitjandara, Murunitja and Wirangu tribes are to be found in this neighbourhood, having congregated here on the fringe of white occupation and away from their own tribal lands. They all speak dialects of Pitjandjara, the language of the Great Victoria or Western Desert.

The two photographs¹ on Plate AC will serve to show the type of native child at Juldi. Left, a boy ; right, a girl, both of the 'Anta'kirinja tribe.

GAMES.

Dr. Haddon² states that the games played by children have a most varied origin, and a similarly unequal value to the student. Before we consider the games played by Aboriginal children, it is desirable to glance at those played by other primitive boys and girls. In an earlier issue of this journal Mr. Bell³ has considered some Melanesian games which, although

¹ Photographs by courtesy of the South Australian Museum. Taken at Ooldea, August, 1939. Nos. O.69 and 76.

² Haddon, A. C., *Study of Man*, pp. 219-24.

³ Bell, F. L. S., "Play Life of the Tanga," *Mankind*, Vol. 2, No. 3, pp. 56-61 ; No. 4 pp. 83-86.

imitative, in many cases, of the activities of adults, vary considerably in form from those of the Australian aboriginal child.

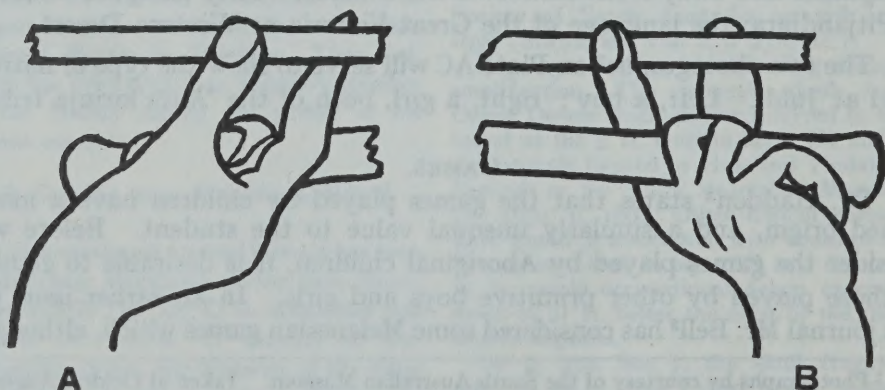
IMITATIVE GAMES.

Much of the play life of the children at Juldi is imitative of adult activities, as for example play about hunting exploits or play about ceremonies.

Great benefit is obtained from participation in these games, especially by the boys who, when they reach manhood, are already partially proficient in the use of the thrower and the spear, the boomerang and the club. They also gain knowledge from playing these games as to the procedure of the chanters around the camp fires at ceremonies, although they have no deep understanding of ceremonial life until it has been revealed to them as adults.

These imitative hunting games and "sing-songs" are greatly enjoyed by all children, and are taken seriously because they are playing at being grown-up. Such behaviour is common among children the world over. Play of this type is encouraged by parents, who take pleasure in watching their own children and, if needs be, advise them when a difficulty arises.

Hunting games are only indulged in by boys. After watching one of their elders making a spear-thrower (*meru*), three or four boys will set to



Text Figure 1.

A. and B. The right hand, showing the position in which spear and spear-thrower are held.

work and endeavour to shape one for themselves. Before the thrower is eventually produced, several attempts may be made, often taking three or four days. The boys do not tire, but industriously labour until the weapon closely resembles that of their elders. A stone-knife or flake mounted on the haft of a spear-thrower (*'kandi-tjurna*) was formerly used in shaping the *meru*, but in latter days a chisel or an axe serves the same purpose. When finished, the *meru* is about two and one half feet in length, but is not decorated (or incised) as are those of the adults.

Spears (*'katji*) are also made by the children, but more often than not they are borrowed from the parents, as are the spear-throwers.

In using the thrower and spear, the boys hold them, as do their elders (see Text-fig. I, A and B), in the right hand, in such a way that the spear shaft passes, and is held, between the thumb and the forefinger, the remaining fingers holding the handle of the thrower. The arm is then flexed backwards ready to throw. As the arm is brought forwards, the thumb and the forefinger are released and the spear careers through the air, the accuracy of its flight largely depending on its manufacture.

The sandhills surrounding the soak or a camp dog offer excellent targets for these youthful marksmen.

Hours are spent in this amusement, which is accompanied with much shouting and singing. Imaginary animals are tracked and ambushed with great care. Quite often they actually spear or trap a small animal or bird. The trophy of the chase is then brought back to camp (*'yura*) and cooked in the embers of the fire and eaten by all the children who took part in its capture.

Boomerangs (*kali*) of a small type and clubs (*tjurtijba*) are also used.

Spears, made from long sticks obtained from a creeper (*'orutjanba*) and hardened by drying in the fire, are used by the children.

In the evenings boys and girls up to about nine years of age have their own camp fires around which they sit and boil billy-tea and eat damper prepared by their parents. When their meal is finished they begin to sing, to the accompaniment of rhythmic beating, with wooden batons, upon the sand at the fire's edge. The songs, in this case, consist of one word continually repeated. The intonation of the voices of the singers varies.

At a little distance away older boys, their ages ranging from nine to sixteen years, also have their camp fire. Some are marked with bands of white lime (*'tjinki*) and red ochre (*'turtu*) upon the chest (*'yaruka*), arms and

legs (*tunta*). At intervals these boys dance (*'walputi*), while others chant to the beat of the wooden baton, in the same manner as described above.

It can all be very effective, especially when the intonation of the voices of the singers varies from a whisper to comparative loudness. The simplest songs consist of one or two words indefinitely repeated. Others are of three or four words, the rhythm of the beat changing to each song. It is very difficult to obtain a correct transcription of these songs, as the pronunciation of a word may vary, stress sometimes being placed on certain syllables which distort the original word. Also, the interpretation of the words is made difficult, as the older informants consider it beneath their dignity to be present.

Examples of three chants are here given :

- (a) *'manta 'okeri 'naranja.*
ground/fresh-leaves/lay down (or spread).
- (b) *tali ma-war:u kapi.*
spit⁴/along-fire/water.
- (c) *'juwa 'mako-'ilkoara nulgo.*
give-me/witchetty-grub/eat.

The above seem to have little meaning beyond their lay value. Thus, (a) refers to fresh leaves being spread on the ground, whilst in (b) spitting (into) fire is (likened unto) water, and (c) is a request for a witchetty-grub. They are probably made up by the children as they sing.

Great amusement is derived from such an evening's entertainment, there being much laughing, chattering and bantering, which unfortunately one cannot follow.

These "sing-songs" are not to be confused with those performed by older uninitiated boys and initiated young men. These latter are known as "play-about ceremonies" (*'inma-'inkanji*). Quite often the younger children endeavour to imitate the performers in the *'inma-'inkanji*, making the head pads or head-dresses (*'inma-tali*) which are used by the older boys.

SUMMARY OF OTHER GAMES PLAYED.

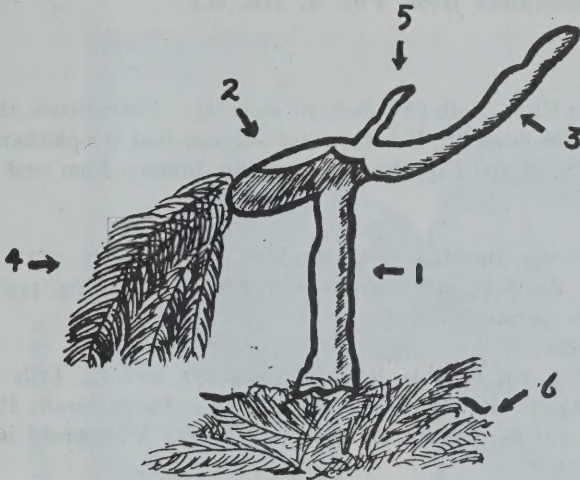
Other games played by the children are :

(a) Shadows on the ground. A few only appear to be known. One of a rabbit was recorded.

(b) String-games are played by both the boys and girls, but such are simple in construction.

⁴ *tali* = spit, also a sandhill. *'Inma-tali* = head-dress worn during *'inma-'inkanji*.

(c) Sand drawing is common. The child either uses its fingers or a twig. The motif, more than often, is "Europeanized," although Aboriginal conventionalized drawing is frequently carried out.



C

Text Figure 1.

C. Sketch of a child's hobby-horse or emu, at Jaldi.

(d) In Text-fig. I, C, is reproduced a drawing of a child's "hobby-horse" or, in this case, an emu ('*kulaja*), upon which the little boys have much enjoyment. It is prepared by them from a strong young tree (C1) which will withstand the child's weight, at the same time giving slightly so that it sways. All projecting branches are removed, except that representing the '*kulaja* neck (C3) and a short stump (C5) used as a handle to hold on to. Fresh branches are left at one side (C4), representing a (much accentuated) emu's tail. At the centre, towards the top of the tree-trunk, a pad (C2) of leaves or bagging is placed to act as a seat. Branches and leaves are then strewn at the foot of the tree (C6) to break a fall if one should occur.

The whole is a realistic representation of an emu.

CONCLUSION.

For the student of primitive life the chief interest in the imitative play of native children lies in its obvious educational value. The primitive child's school is its playground, and his playground is everywhere.

R. M. BERNDT.

Australia : Material Culture.**McCarthy.****Aboriginal Australian Material Culture : Causative Factors in its Composition.**

By Frederick D. McCarthy, *Dip.Anthr.* (Syd.), *Dept. of Anthropology, Australian Museum.* (Continued from Vol. 2, No. 8.)

Domestic Appliances.

Platform sleeping huts.

Cape York, north of Palmer River, Roth (⁽⁶⁸⁾, Bull. 16, sect. 11). Torres Strait, Haddon (⁽⁵⁾, Vol. IV, chapter IV). Haddon (⁽⁵⁾, Vol. I, p. 300) suggests that the platform type of hut spread into Torres Strait and Cape York as part of a diffusion from west of the Fly River, Papua.

Palm-spathe containers.

Northern and eastern Australia, Davidson (⁽¹¹⁾, pp. 185-6, map 2, fig. 4).

Torres Strait, Haddon (⁽⁵⁾, Vol. I, p. 301); Kiwai Is., Landtmann, (⁽⁴⁵⁾, fig. 413); Fly River (Australian Museum specimens).

Gourd and coconut water bottles.

Cape York, Davidson (⁽¹¹⁾, p. 194, map 2), Roth (⁽⁶⁸⁾, Bull. 77, sect. 64, Tully River, Cairns district, Cape Bedford): Hamlyn-Harris (⁽³³⁾, p. 32); Torres Strait, Haddon (⁽⁵⁾, Vol. IV, p. 123); Kiwai Is., Landtmann (⁽⁴⁵⁾, pp. 61-62). Widespread in New Guinea.

Large shell containers.

North Australia and north-east Queensland coast, Davidson (⁽¹¹⁾, p. 193, map 2); Torres Strait, Haddon (⁽⁵⁾, Vol. II, p. 122; Vol. I, p. 303); Kiwai Is., Landtmann (⁽⁴⁵⁾, p. 61).

Hafting implements in cleft stick, and spear-heads in cleft shaft.

Queensland, Roth (⁽⁶⁸⁾, Bull. 7, sect. 30-31, figs. 123, 126-30); central and north Australia, Davidson (⁽⁹⁾, Vol. XLIII, No. 3, pp. 151-3, fig. 29); Torres Strait, Haddon (⁽⁵⁾, Vol. II, p. 124). Widespread in New Guinea, especially method of hafting stone adzes and axes.

Oven (earth or sand with stones, coral or ant bed blocks).

Occurs throughout eastern Australia. Roth (⁽⁶⁸⁾, Bull. 3, p. 8); Smyth (⁽⁷²⁾, Vol. II, p. 187); Torres Strait, Haddon (⁽⁵⁾, Vol. I, p. 303; Vol. IV, p. 132); Trans-Fly area, western Papua, Williams (⁽⁹¹⁾, p. 228); Kiwai Is., Landtmann (⁽⁴⁵⁾, p. 59); Friederici (⁽²⁴⁾, p. 5) says that this type of oven has spread all over the Pacific to New Guinea, Papua, parts of Australia and some Indonesian islands, and he calls it the Polynesian type.

Bamboo tongs.

Cape York, Roth (⁽⁶⁸⁾, Bull. 7, sect. 10, fig. 19); Torres Strait, Haddon (⁽⁵⁾, Vol. IV, p. 120, fig. 148—Mer.); Kiwai Is., Landtmann (⁽⁴⁵⁾, p. 59); Trans-Fly area, western Papua, Williams (⁽⁹¹⁾, p. 228).

Drills, with tooth or stone borers.

North-east Queensland coast, Roth (⁽⁶⁸⁾, Bull. 7, sect. 40-42, figs. 172-5); Torres Strait, Haddon (⁽⁵⁾, Vol. IV, p. 128—traded from Papua). Common throughout New Guinea.

Bark cloth.

Cairns district, Queensland, Roth (⁽⁶⁸⁾, Bull. 15, sect. 56); New South Wales coast, Howitt (⁽³⁹⁾, p. 538).

Widespread in New Guinea, and made along the Papuan coast.

ABORIGINAL CHILDREN'S GAMES.

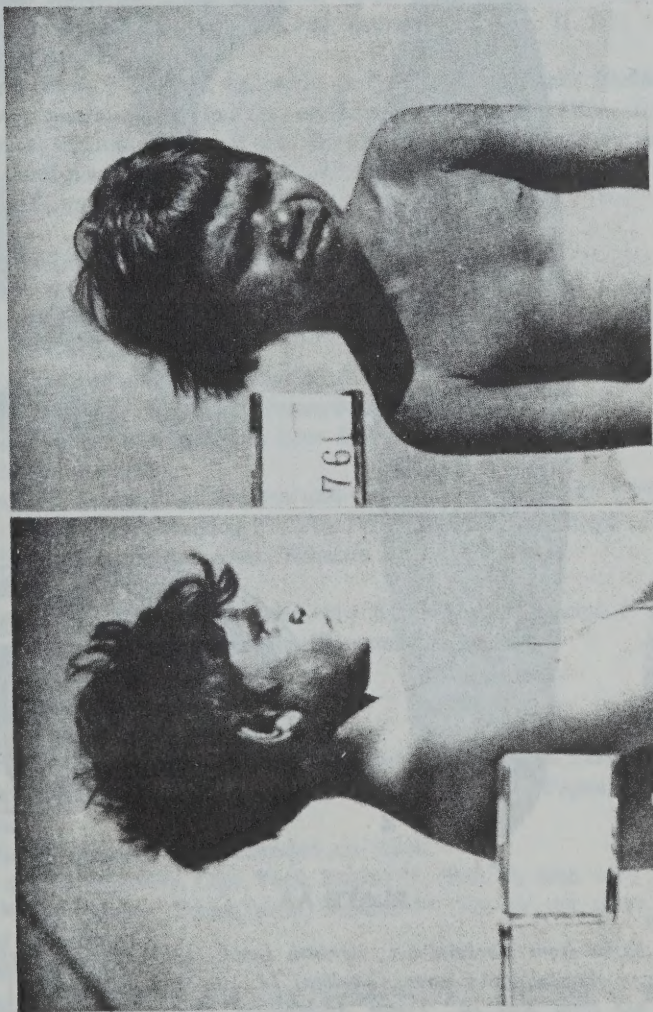


PLATE AC.

Two native children of the 'Anla'kirinja tribe, at Juddi. Left: A boy. Right: A girl.
By courtesy of the South Australian Museum.

ABORIGINAL AUSTRALIAN MATERIAL CULTURE.

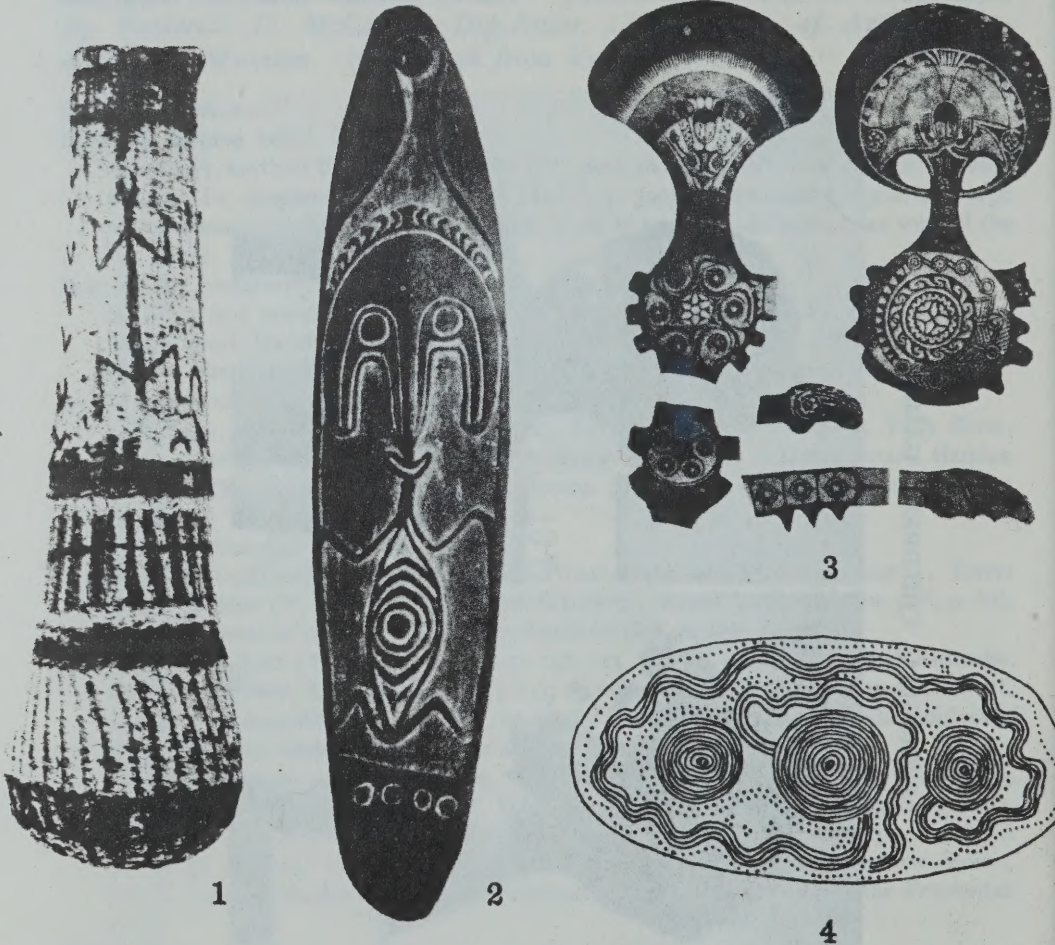


PLATE AA.

Hocker figure on

- (1) Twined basket from Merkalal Ck., Arnhem Land. (A.M. Coll. E.5175.)
- (2) Madubu or Agricultural Charm, Goaribari Id. (A.M. Coll. E.15766.)
- (3) Bronze axe from Roti Id., Timor Archipelago, showing typical decorative design elements (from Heine-geldern, 35, fig. 20); the concentric circles, meandering lines, and linked circles should be compared with the Kimberley-Central Australian decorative art.
- (4) Stone tjurunga of Yelka Totem, Arunta tribe, showing bronze age decorative art elements. (A.M. Coll., No. E.18478, presented by Sir Baldwin Spencer.)

Wooden mortar and pestle.

Cape York, Roth ⁽¹⁶⁸⁾, Bull. 7, sect. 38) ; Mer, Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, p. 124, figs. 154-5) ; Kiwai Is., Landtmann ⁽¹⁴⁵⁾, p. 60).

Single-outrigger dugout canoes.

Cape York, Roth ⁽¹⁶⁸⁾, Bull. 14, sects. 14-16) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, chapter X) ; relationships, Haddon and Hornell ⁽¹³⁰⁾, Vols. II, III).

Double-outrigger dugout canoes.

Cape York, Roth ⁽¹⁶⁸⁾, Bull. 14, sects. 12, 13) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, chapter X) ; relationships, Haddon and Hornell ⁽¹³⁰⁾, Vols. II, III). Haddon ⁽¹⁵⁾, Vol. I p. 313) is not certain whether it was introduced directly from Indonesia, or whether it diffused round northern New Guinea, and then east along the coast of Papua to Torres Strait islands and Cape York.

Ornaments.

Melo-shell ornaments and spear-thrower attachments.

Cape York and eastern Australia, McCarthy ⁽¹⁴⁰⁾, Vol. X, No. 1, pp. 92-5, map 14) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, pp. 201-2, fig. 204) ; Trans-Fly area, western Papua, Williams ⁽¹²¹⁾, p. 35, 38-9).

Attachments of rows of small shells, shell sections and seed to belts, necklets, circlets, etc.

Cape York, Roth ⁽¹⁶⁸⁾, Bull. 15) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, p. 36, pl. viii, fig. 2 . pl. ix, figs. 2-3). Widespread in New Guinea.

Pandanus armlets and belts.

Cape York, as far south as Staaten and Bloomfield rivers, Roth ⁽¹⁶⁸⁾, Bull. 15, p. 45, fig. 26) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, p. 58, as plaited rings) ; Kiwai Is., Landtmann ⁽¹⁴⁵⁾, p. 43) ; Papuan coast, Williams ⁽¹²¹⁾, p. 36).

Cassowary feather head bands.

Cape York, Roth ⁽¹⁶⁸⁾, Bull. 15, sect. 7) ; Kiwai Is., Landtmann ⁽¹⁴⁵⁾, p. 37). Torres Strait and New Guinea (Australian Museum specimens).

Cone-base breast ornament.

Thorpe ⁽¹⁶⁰⁾, p. 491).

Curved nose-style.

Batavia and Staaten Rivers and Princess Charlotte Bay, Cape York, Roth ⁽¹⁶⁸⁾, Bull. 15, sect. 18) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, p. 39) ; Papua (Australian Museum specimens).

Wearing of heavy ornaments in distended ear lobes.

Embley and Coen Rivers, Cape York, Roth ⁽¹⁶⁸⁾, Bull. 15, sect. 17) ; Kiwai Is., Landtmann ⁽¹⁴⁵⁾, pp. 39-40) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, pp. 10-11, 40, fig. 1).

Pastimes and Playthings.

Spinning balls and tops.

Australia : Etheridge, ⁽¹²⁰⁾ Hale and Tindale, ⁽¹²¹⁾ Roth ⁽¹⁶⁸⁾, Bull. 4, p. 18), Horne and Aiston, ⁽¹²⁰⁾ Edge-Partington ⁽¹¹⁶⁾, Ser. I, Pt. 2, p. 136, figs. 11-12) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. II, p. 314) ; Papuan Gulf, Holmes ⁽¹²⁷⁾, p. 281) ; Elema, Papua, Holmes ⁽¹²⁶⁾, pp. 281-2).

Ball and stick (hockey) game.

Central Queensland, Roth ⁽¹⁶⁸⁾, Bull. 4, p. 18) ; Torres Strait, Haddon ⁽¹⁵⁾, Vol. IV, p. 312) ; Elema, Papua, Holmes ⁽¹²⁶⁾, pp. 282-3). Widespread in New Guinea.

Bamboo pipe. Cape York.

Princess Charlotte Bay, Hale and Tindale ⁽³¹⁾, Vol. V, No. 1, figs. 219-25; Hamlyn-Harris ⁽³²⁾, p. 30; Thorpe ⁽³⁰⁾, p. 491. Haddon ⁽⁵⁾, Vol. II, p. 141 says that bamboo pipes were traded to Cape York from Torres Strait islands, and ⁽¹⁵⁾, Vol. I, p. 304 that pipe-smoking diffused from New Guinea into Papua down the right bank of the Fly River, and then into Torres Strait and Cape York.

Hide and seek game.

Queensland, Roth ⁽⁶⁸⁾, Bull. 4, p. 17; Papua, Barton ⁽¹¹⁾, p. 267; Elema, Holmes ⁽³⁶⁾, p. 285).

Round singing game.

Queensland (Cooktown, Cape Bedford and McIvor River), Roth ⁽⁶⁸⁾, Bull. 4; Papua, Haddon ⁽²⁸⁾.

Ceremonial and Magic.

Thread cross.

Australia, Davidson ⁽¹²⁾, pp. 84-86; Torres Strait and Papua, Haddon ⁽⁵⁾, Vol. II, pp. 34-35).

Nut and shell rattles.

Princess Charlotte Bay, Hale and Tindale ⁽³¹⁾, Vol. V, No. 1, fig. 200; Vol. V, No. 2, p. 140. Also eastern coast of Australia; Torres Strait, Haddon ⁽⁵⁾, Vol. II, p. 271; Vol. IV, pp. 271-3, figs. 229-30; Kiwai Is., Landtmann ⁽⁴⁵⁾, p. 71. Widespread in New Guinea.

Hero-cult paraphernalia, Cape York: skin-drum (plain and fish-mouth types), masks and head-dresses, layout of ceremonial ground (*kwod* type with screen), skirt, etc.

East coast of Cape York, Roth ⁽⁶⁸⁾, Bull. 12, pp. 166-85; Bull. 15, sect. 36; Thomson ⁽⁷⁷⁾; west coast of Cape York, McConnel ⁽⁵²⁾, Vol. VII, No. 1, p. 78) says that Shiveri (Sivirri) and Nyunngu introduced an initiation ceremony, with layout of ceremonial ground, secret enclosures, drum with plain end, and skirt, and that Shiveri introduced the bow and arrow.

Haddon ⁽⁵⁾, Vol. I, p. 384) believes that the Kwoiam-Sivirri and Horiomu cults were brought to Cape York by people in double-outrigger canoes, and that each brought a special type of drum, further, that the former cult came from western New Guinea ⁽¹⁵⁾, Vol. I, p. 269). He also refers ⁽¹⁵⁾, Vol. I, p. 271) to the animal masks worn in the *rimarango* dances as one of the last phases to arrive.

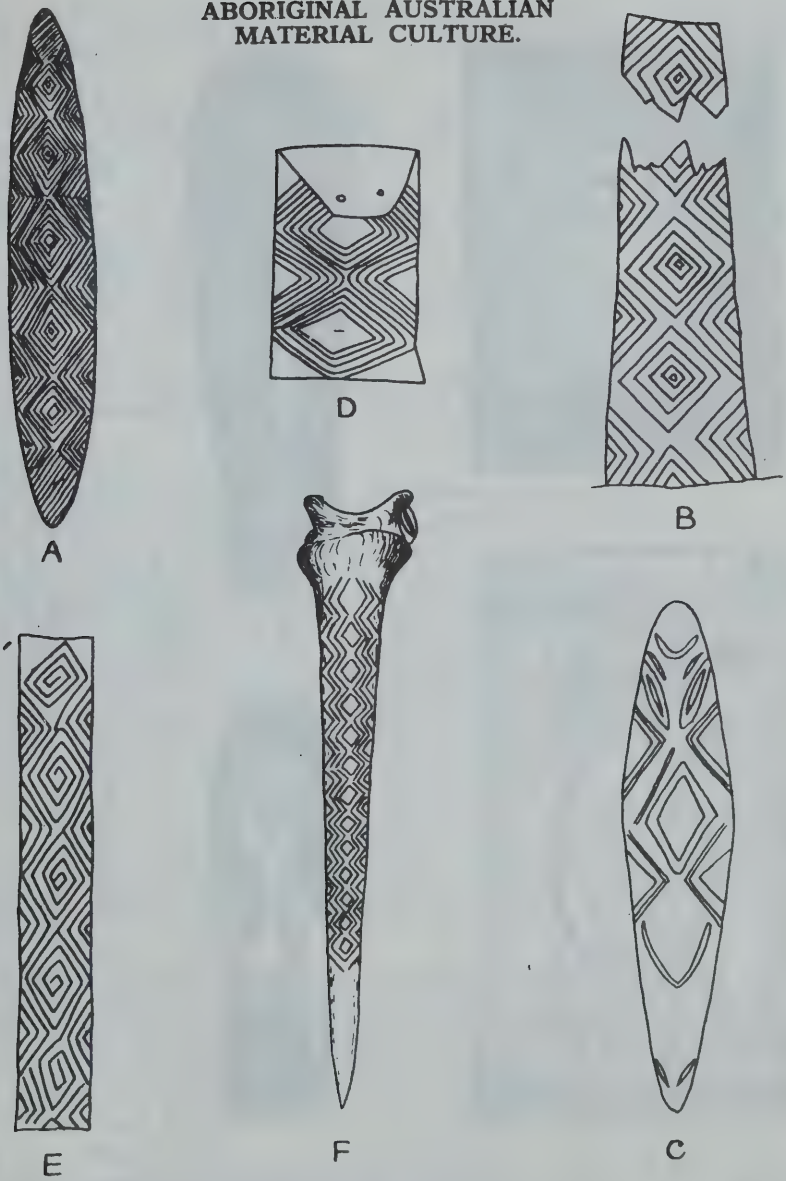
Bullroarer. Widespread in Australia.

Howitt ⁽³⁹⁾, chapter VIII), Roth ⁽⁶⁸⁾, Bull. 12; Kiwai Is., Landtmann ⁽⁴⁵⁾, figs. 716, 720, with concentric diamond motif which is predominant in decorative art in eastern Australia; Trans-Fly area, western Papua, Williams ⁽⁹¹⁾, pp. 180-2, major and minor types used; Purari Delta, Williams ⁽⁸⁹⁾ Papuan Gulf. Williams ⁽⁹⁰⁾ (refers to major and minor types used). Haddon ⁽⁵⁾, Vol. I, pp. 261-5) says that the cult of a novice-devouring monster associated with initiation spread from Astrolabe Bay southward down the Fly River, New Guinea; Sosom is a variant of this monster. This cult is associated with the bullroarer in Australia.

Disposal of the Dead.

Haddon ⁽⁵⁾, Vol. I, p. 342) says that a complex of (a) wearing of bones and skull by mourners, (b) wearing of dried limbs and hands, (c) desiccation, spread from New Guinea

ABORIGINAL AUSTRALIAN
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Text Figure 9.

Concentric diamond motif. A. Shield from Murray River (A.M. Coll.). B. Carved tree, Gloucester, N.S.W. (after Etheridge). C. Bullroarer, Kivai Id. (Landtmann, 45, fig. 712). D. Bark belt, Fly River (Landtmann, 45, fig. 256). E. Clapstick, southern Dutch New Guinea (Batavia Museum, 17642). F. Bone dagger, Central Dutch New Guinea (Batavia Museum, 15306).

ABORIGINAL AUSTRALIAN MATERIAL CULTURE.



1



3



2



4

PLATE AB.

Wandjina type figures.

- (1) Rock painting of Wandjina in the Kimberley district, Western Australia. (After Davidson, 14A, fig. 57, photograph by Brockman Expedition.)
- (2) Awong board, Marind-Anim, Netherlands New Guinea (figured by Vertenten, 80, pl. XX, fig. 3). Compare with the Lightning Brothers figured by Davidson (14A, frontispiece), which bear similar projections (ears) on the head.
- (3) Panel from Siebuc, Netherlands New Guinea (figured by De Clercq and Schmeltz (7, pl. XXXIX, fig. 8).
- (4) Panel from Marind-Anim, Netherlands New Guinea (figured by Wirz, 84, fig. 124).

into Torres Strait and across Australia into Tasmania. Australian distributions, Roheim.⁽⁶⁵⁾ The skulls were decorated in Cape York, Torres Strait and New Guinea, Haddon⁽¹⁸⁾, Vol. I, p. 341).

Platform burial.

Widespread in Australia, Roheim⁽⁶⁶⁾, map).

Torres Strait, Haddon⁽¹⁸⁾, Vol. VI, pp. 248-9, 126; Vol. I, p. 321; Purari Delta, Williams⁽⁸⁹⁾, p. 217).

Wearing of fish-nets of deceased by relatives during mourning.

Princess Charlotte Bay, Hale and Tindale⁽³¹⁾, Vol. V, No. 1, pp. 95-96, fig. 73). Papua (photograph by Capt. F. Hurley.)

Funeral ritual, with masks, of Koko Y'ao tribe, Cape York.

Thomson,⁽⁷⁷⁾ quoted by Haddon⁽¹⁸⁾, Vol. I, p. 269).

Mummification.

Occurrences in north and east Queensland, and along the Darling-Murray River basins, in eastern-Australia and Torres Strait islands, discussed by Dawson⁽¹⁵⁾ and Elkin^(17a), pp. 249-52).

Art Motifs.

Concentric diamond, with half diamond and chevron field (Text Figure 6).

Widespread in Australia, Davidson⁽¹²⁾, figs. 85 and 88) and McCarthy⁽⁴⁹⁾, pp. 20-26, 47, figs. 2-5, 9, 24, 32). On clubs, shields, trees, sacred boards.

Kiwai Is., Landtmann⁽⁴⁵⁾, on headdress, fig. 118, on comb, fig. 154, ear-weight, fig. 171, bullroarer, fig. 716, wooden mask, fig. 142); Fly River mouth, Landtmann⁽⁴⁵⁾, on bark belt, fig. 256, sacred boards, figs. 711-12); Papuan Gulf, at Gaima on drums and face masks, Landtmann⁽⁴⁵⁾, figs. 139, 618, 621), and on bark-cloth mallets, Edge-Partington⁽¹⁶⁾, Ser. III, Pt. 1, p. 178, fig. 4); Purari Delta, on bone daggers, Williams⁽⁸⁹⁾, p. 40).

Widespread in New Guinea and Melanesia, occurs in New Zealand and Gilbert Islands (Edge-Partington,⁽¹⁶⁾ Ser. I, Pt. 1, p. 70, fig. 5; p. 93, fig. 3; p. 100, fig. 1; p. 124, fig. 1; p. 129, figs. 4-5; p. 154, p. 161, figs. 2-3; Ser. I, Pt. 2, p. 33, fig. 5; pp. 2-7, fig. 1; p. 216, fig. 2; Ser. II, p. 9, fig. 1; p. 82, fig. 7; p. 92, fig. 8; Ser. III, p. 77, fig. 8; p. 79, figs. 1-2; p. 93, fig. 12; p. 159, fig. 5). It is probable that the concentric diamond and associated art elements formed part of the spread of the initiation cult in which the bullroarer and novice-devouring monster are features; this cult prevails in eastern Australia.

The limited northern and eastern distributions of most of the traits in this group indicate that they were introduced into Cape York (whence they spread on the continent) since the Papuan or Melanesoid penetration of the islands of Torres Strait, or by the representatives of these peoples who settled and mixed with the aborigines of Cape York. Hrdlicka⁽⁹⁶⁾, p. 24), Wagner⁽⁸⁹⁾, p. 149) and Fenner⁽²²⁾ have clearly demonstrated from their cranial studies that Melanesoid (in which term is included the Papuans) physical characters are present in Cape York and north-east Queensland. Wagner⁽⁸⁹⁾, p. 150) says that the south Papuan groups of crania show no special relationship with the Australian, but the Torres

Strait crania are closely related to the Queensland (probably north-east) group. The contact between the Torres Strait islanders and the aborigines of Cape York has been long and intimate, as has that between the Torres Strait islanders and the natives of the Daudai-Fly estuary coastal area. Haddon (⁽⁵⁾, Vol. I), Thomson (⁽⁷⁷⁾) and McConnel (⁽⁵²⁾) have shown how deeply initiation and hero-cults from New Guinea and Torres Strait have penetrated the aboriginal culture in Cape York, and my paper on trade routes (⁽⁴⁸⁾, Vol. X, No. 2) has shown how simple and rapid a process diffusion has been between Cape York and western Papua. The slow infiltration of Melanesoids and their culture elements into Cape York would suggest that the Tasmanians were supplanted on the mainland by the Australians in a similar manner.

Information not yet available may indicate additional influences in Australian material culture from neighbouring peoples. Accurate archæological research in Oceania will undoubtedly throw much light upon the movements of peoples and cultures from southern Asia through Malaya and the Pacific region, while a detailed analysis of distributions throughout Oceania of languages, physical characters and types, elements of social organization, magico-religious practices and material culture would assist tremendously in distinguishing the various racial and cultural groupings.

In the Cairns-Cardwell-Atherton district a number of Papuo-Melanesian traits occur. They include bark cloth and wooden beaters, large axe blades, large bossed shields, long flattened sword clubs, and the shape of the rigid baskets. In Papua bark cloth is found along the entire south coast, very large axes occur on Kiwai Is., and among the Massim of eastern Papua, shields are present from the Purari Delta eastward (and not in the Fly Daudai region), wooden swords among the Massim, and netted bags of the same shape as the rigid baskets mentioned occur in the central division of Papua. With no historical evidence that trading canoes or migrants have penetrated so far south along the Queensland coast, it is only possible at present to state the similarities. A plausible explanation is that trade led a colonizing group of Papuans from Torres Strait, or elsewhere, to settling on this part of the coast.

GROUP C. TRAITS INTRODUCED INTO AUSTRALIA FROM TORRES STRAIT.

Harpoon, with detachable head.

Haddon (⁽⁵⁾, Vol. IV, pp. 166-69) says that Muralug is the centre of manufacture, from where they are traded to other Torres Strait islands, and also to Kiwai Is., Landtmann

(⁴⁵), p. 28). They are made and used along the Queensland coast, Roth (⁶⁸), Bull. 7, sect. 66, figs. 238-46).

Use of sucker-fish in catching turtle.

Somerset and Tully River, Roth (⁶⁸), Bull. 3, 1901, sect. 15c). Muralug, Torres Strait Haddon (⁵), Vol. IV, p. 162).

Cicatrice motif : concentric semi-circle line figure, Cape York and Torres Strait.

Haddon (⁵), Vol. IV, p. 25).

Stone fish-traps.

Eastern and northern Australia, Roth (⁶⁸), Bull. 3, sect. 15j), Mathews(⁵³), Enright(¹⁸), Mountford,⁽⁵⁷⁾ Love (⁴⁶), pp. 137-8).

Torres Strait islands : Erub, Ega, Mer, Haddon (⁵), Vol. I, pp. 152, 197) ; introduction into eastern and central islands by the heroes Abob and Kos of Mer (Haddon,⁽⁵⁾ Vol. I. p. 374). Widespread in Oceania (Haddon(⁵), p. 197, Vol. I).

Feather-rayed headdress.

Torres Strait, Haddon (⁵), Vol. IV, pp. 37-38, pl. VI). These headdresses passed by trade north to the Fly River estuary, and southward to the Cape York coast (Australian Museum specimens).

GROUP D. TRAITS TRADED FROM CAPE YORK TO TORRES STRAIT.

Spears.

Haddon (⁵), Vol. IV, pp. 196-7), mainly to the western islands of Torres Strait.

Spear-throwers.

Haddon (⁵), Vol. IV, pp. 196-7, fig. 200), mainly to the western islands. They passed in trade to the western division coast in Papua (Australian Museum specimen). Landtmann (⁴⁵), p. 57) says that the Kiwais are familiar with the spear-thrower, which is particularly associated with Kuiamo, the hero of Mabuia Is., in Torres Strait.

Twined baskets.

Traded to the western islands, Haddon (⁵), Vol. IV, p. 74, pl. XVII, figs. 5-6).

Entada scandens bean for making spinning tops.

Traded to the western islands, Haddon (⁵), Vol. IV, p. 314).

Stone for axes.

Thomson.⁽⁷⁷⁾

Disposal of the bones of the dead in trees.

Haddon (⁵), Vol. I, p. 321) says that it is doubtless that this custom among the western and southern islanders is due to influence from Australia.

GROUP E. TRAITS PRESENT IN AUSTRALIA AND NEW GUINEA, BUT ABSENT FROM TORRES STRAIT.

Fish-nets.

Eastern and north Australia, Roth (⁶⁸), Bull. 3, sect. 15i) ; Davidson (⁶⁸), p. 259, map 1) ; Haddon (⁵), Vol. I, p. 151 ; Vol. IV, p. 159) and Landtmann (⁴⁵), p. 31) state that they are absent in Torres Strait and Kiwai Is. respectively. Landtmann (⁴⁵), p. 31) says that hoop nets are used among inland tribes west of the Fly River, and Williams (⁶⁸), p. 12) mentions their use in the Purari Delta. The use of nets is widespread in New Guinea.

Large Game Nets.

Eastern Australia, Roth ⁽¹⁶⁸⁾, Bull. 3, sect. 21, 32) ; Saville-Kent ⁽¹⁷⁰⁾, p. 328, for dugong at Moreton and Wide Bays) ; Brough Smyth ⁽¹⁷²⁾, Vol. II, p. 185).

New Guinea : Specimen from D'Entrecasteaux Is. in Australian Museum collection, but its distribution is not known.

Netting techniques (knotted, simple-loop, loop and twist, loop and double twist, hour-glass).

Distribution and relationships, Davidson.⁽⁶⁾

The absence of the above traits from the Torres Strait islands is an anomaly for which no reasonable explanation can be offered ; the limited northern and eastern distributions in Australia indicate, however, that they were introduced from New Guinea, as Davidson⁽⁸⁾ has convincingly argued in regard to the netting techniques.

GROUP F. TRAITS PRESENT IN EASTERN AUSTRALIA, AND IN THE NEW HEBRIDES AND NEW CALEDONIA ISLANDS.

Club types. Bulbous, bird-headed, phallic and discoid varieties.

Australia, Edge-Partington ⁽¹¹⁶⁾, Ser. III, pp. 100-2) ; New Caledonia, Edge-Partington ⁽¹¹⁶⁾, Ser. I, Pt. 1, pp. 130-1).

With the axe handle. Widespread in Australia.

New Caledonia, Edge-Partington ⁽¹¹⁶⁾, Ser. I, Pt. 1, p. 132, fig. 4) ; Solomon Is. (Australian Museum specimens).

Boomerang (non-returning type). Universal in Australia.

New Hebrides, Rivers.⁽⁶⁴⁾

Leaf-cross.

Cardwell to Mossman River, Cape York, Roth ⁽¹⁶⁸⁾, Bull. 4, p. 19) ; New Hebrides (Australian Museum specimens).

Staining and polishing of weapons. Universal in eastern Australia, New Hebrides and New Caledonia.

Axes—ground-edge and discoid forms (Australian Museum specimens).

The parallels can only be stated at present. Rivers ⁽⁶³⁾, p. 161 has stated that " there are far more elements in common between Australia and Melanesia (especially the New Hebrides and Bismarck Archipelago) than has hitherto been supposed, and are as great as to leave little doubt that certain influences from without which have vitally affected Melanesia, must also have reached Australia." Wagner ⁽¹⁹⁸⁾, p. 151 said that " the agreement between New Caledonia, Torres Strait and Queensland (crania) is so good that I can hardly believe that it is only due to chance. Naturally, this does not mean that the New Caledonians themselves have exerted this influence. But that one or more Melanesian tribes spread in a westerly direction to Torres Strait and reached the Australian mainland is probable."

It is probable that the above traits and cranial similarities are survivals in New Caledonia and New Hebrides of the Australoid occupation which preceded the Melanesoid invasion.

GROUP G. PAPUAN INFLUENCES IN ARNHEM LAND AND NEIGHBOURING ISLANDS.

Grave-posts.

Arnhem Land, Spencer (⁽⁷⁶⁾, chapter VI, pl. X).

Vertenten (⁽⁸⁶⁾, pl. XXV, figs. 1-10) figures painted and carved posts from the "festhaus" of the Marind-Anim, Netherlands New Guinea, which strongly resemble those of Arnhem Land; although the natural species depicted on the posts from the two localities differ, they are set in similar geometrical fields.

Mourning armlets (sewn-bark type).

Bathurst-Melville Is., Spencer (⁽⁷⁶⁾, pls. viii, xxix-xxx). Widespread in New Guinea: Fly and Sepik Rivers, and Admiralty Island specimens in Australian Museum collection.

Palm-leaf or spear-barb cicatrice pattern.

Bathurst-Melville Is., Spencer (⁽⁷³⁾, figs. 14-17); Marind-Anim, Netherlands New Guinea, Wirz (⁽⁹³⁾, pp. 298-9, fig. 75).

Bark belt.

Arnhem Land, Spencer (⁽⁷³⁾, fig. 71), Sunday Is., Derby district and Dampier Land, Elkin (*Journ. Roy. Soc. N.S.W.*, LXIX, 1936, pp. 190-208); Fly River, New Guinea, Landtmann (⁽⁴⁵⁾, p. 44) and Australian Museum specimens.

Plaited armlets.

Widespread in New Guinea. Arnhem Land, Spencer (⁽⁷³⁾, pl. xxvii, figs. 1-8).

Ornaments.

It is probable that other ornaments, for example the rigid circular types of Melville and Bathurst Islands, were introduced into Arnhem Land by the Papuans, but the material is not available from the islands of the Arafura Sea, Netherlands New Guinea, nor is it sufficiently described in literature, to establish the relationships.

Cowl-shaped hood and sleeping mat.

Arnhem Land (Australian Museum specimens).

Trans-Fly area, western Papua, Williams (⁽⁹¹⁾, p. 401).

Marind-Anim, Netherlands New Guinea, Wirz (⁽⁹³⁾, figs. 62, 68).

Conical fish-trap.

Alligator River and Arnhem Land coast. Widespread in New Guinea.

Drone tube.

Arnhem Land, Spencer (⁽⁷³⁾, pl. xxvi), Warner (⁽⁸⁷⁾, p. 469), and Kimberleys. Derived from flute which is widespread in New Guinea.

Skin (shark or stingray) rasp.

Arnhem Land, Spencer (⁽⁷³⁾, p. 395, pl. xxvii, fig. 6). Widespread along New Guinea coast.

Oven (earth or sand with stones, coral or ant bed blocks).

Arnhem Land and north-west Australia. Warner (⁽⁸⁷⁾, p. 142), Love (⁽⁴⁶⁾, p. 89); Trans-Fly area, western Papua, Williams (⁽⁹¹⁾, p. 228); Friederici (⁽⁸⁴⁾, p. 5) says that this type of oven has spread all over the Pacific to New Guinea, Papua, parts of Australia and some Indonesian islands, and he calls it the Polynesian type.

Saw-method of making fire.

Arnhem Land, Spencer (⁽⁷³⁾, p. 392) ; central Australia, Spencer and Gillen (⁽⁷⁵⁾, fig. 114) and north-west Australia. This method does not occur in eastern Queensland or Cape York (Roth,⁽⁶⁸⁾ Bull. 7, sect. 9).

Decorative art.

Several important elements in the decorative art appear to be due to Papuan influence. The practice of painting a natural species in a field of cross hatching or lattice in Arnhem Land and adjacent islands occurs on two sacred carvings from the Sepik district (Australian Museum collection), and is probably more widely distributed in New Guinea ; it is common on New Ireland "Malanggan" carvings.

Similar designs painted on skulls of the dead are illustrated by Thomson(⁽⁷⁸⁾) and McCarthy (⁽⁴⁹⁾, fig. 31) from Arnhem Land, and by De Clercq and Schmeltz (⁽⁷⁾, pl. xxxvi, figs. 2 and 14, p. 185, Nos. 771-2) from Netherlands New Guinea.

Dr. Carl Schuster has drawn my attention to the crouched "hocker" figure (Pl. B, figs. 1-2) occurring in Arnhem Land on twined baskets (Spencer,⁽⁷³⁾ pl. xxiv, figs. 2 and 6), and in New Guinea, on sacred boards and in carvings in the round.

The Australian Museum possesses a series of figures of turtles, kangaroos and crocodiles, modelled in gum, from north-eastern Arnhem Land ; carving in the round is characteristic of New Guinea.

Disposal of bones of dead in hollow post.

Warner (⁽⁸⁷⁾, pp. 468-9) suggests that it is a recent intrusion into Arnhem Land culture.

Ulmark gong.

Warner (⁽⁸⁷⁾, p. 469) suggests that it is a recent intrusion into Arnhem Land culture. Use widespread in New Guinea.

Spear type ; multi-stingray spine head.

Arnhem Land, Warner (⁽⁸⁷⁾, p. 489) ; Australia, Davidson (⁽⁹⁾, Vol. XLIII, No. 2, fig. 7). Apaiaang, Gilbert Is. (Australian Museum specimens).

Harpoon with detachable head.

Arnhem Land, Warner (⁽⁸⁷⁾, p. 493) ; Torres Strait, Haddon (⁽⁵⁾, Vol. IV, pp. 166-9).

Spear type : reed-spear.

Arnhem Land, Warner (⁽⁸⁷⁾, pp. 486-7), and Davidson (⁽⁹⁾, Vol. XLIII, No. 2, fig. 9).

Quartzite knife and spear-point.

Central Australia, Spencer and Gillen (⁽⁷⁵⁾, pp. 640-56) ; western Queensland, Roth (⁽⁶⁷⁾, sect. 257) ; Arnhem Land and Kimberleys, Davidson (⁽⁹⁾, Vol. XLIII, p. 151, fig. 30). The derivation of this blade in Australia is obscure ; it occurs in the Admiralty Islands, where it is made of obsidian and is used as a knife-dagger and spear-head. Metal daggers and spear-heads are used by the Malays, bone daggers and bamboo knives by the Papuans of New Guinea.

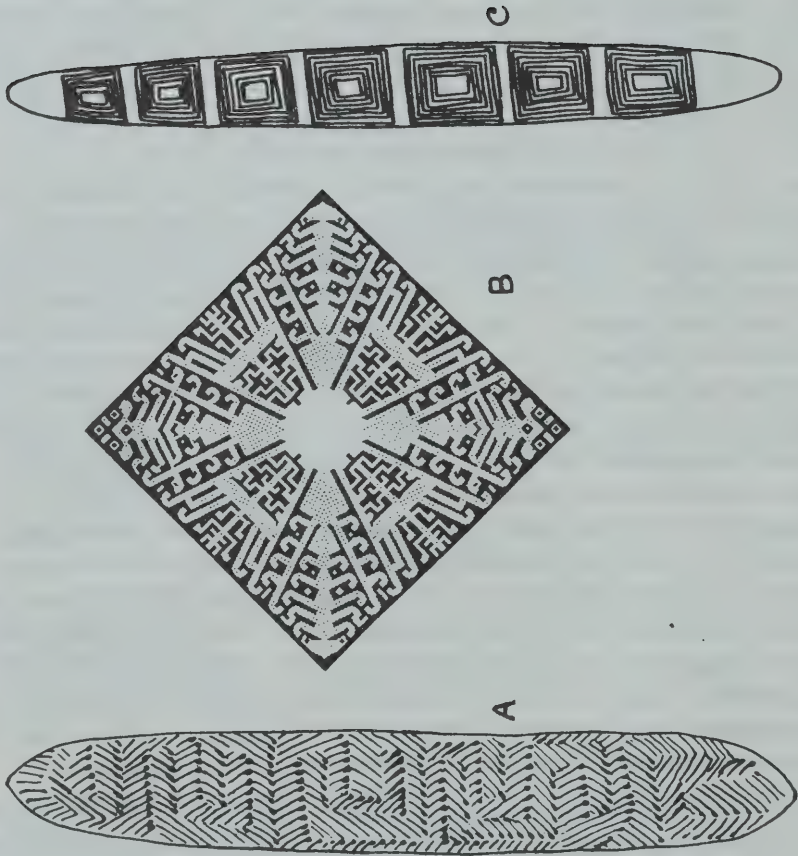
The infiltration of Papuan influences into Australia through Arnhem Land and adjacent islands has been a more important source of culture enrichment than has hitherto been admitted, and the above traits illustrate how deeply it has affected Australian culture. Such an admixture is not surprising when we consider that the Timor Laut, Aru, Kei and

Tenimber Islands, lying between Arnhem Land and Netherlands New Guinea, are inhabited by Papuans with sea-going canoes; moreover, the trading and fishing proas of the Bugis from Makassar called at the Aru Islands on their voyages to and from Arnhem Land, and the Timorese visited the north Australian coast (Warner,⁽⁸¹⁾ Appendix I, and McCarthy,⁽⁴⁸⁾ Vol. X, No. 2, map 16). Fenner (⁽²²⁾, Fig. 12, type B), Morant (⁽⁹⁷⁾, p. 417), Hrdlicka (⁽⁹⁶⁾, p. 24) and Wagner (⁽⁹⁸⁾, p. 149) have shown that extra Australian, probably Papuo-Malayan, characters are present in the crania from Arnhem Land (Text Fig. 10). The Arnhem Land coast thus appears to have been almost as important as Cape York with respect to the diffusion of traits from New Guinea into Australia.

Some of the traits introduced into Arnhem Land have diffused along the southern coast of the Gulf of Carpentaria to north-east Queensland, as e.g., the drone-tube. This process might possibly explain the distribution of the spear-thrower in Australia, which Davidson⁽¹⁰⁾ regards as an introduction from New Guinea. It might be pointed out that the female type has diffused from Micronesia (von Luschan⁽⁴⁷⁾) southward into New Guinea, where it occurs on the Sepik River (Reche⁽⁶¹⁾) and among the Marind-Anim in southern Netherlands New Guinea (Haddon,⁽⁵⁾ Vol. I, p. 254). The male type occurs throughout Australia, and in Arnhem Land the stick type, which most resembles the bamboo female type, prevails. Thus we have two alternatives: (1) the male type was brought by the aborigines, an explanation which does not account for its absence in the greater part of Queensland; (2) the aborigines borrowed the idea from the Papuans, and adopted the male type for reasons not known; it then diffused southward throughout the greater part of the continent, into south-east Australia from central Australia, along the Gulf of Carpentaria to Cape York, but not into central, southern and eastern Queensland. It appears, also, that the reed-spear was introduced into both Arnhem Land and Cape York.

It is generally admitted that the *wandjina* figure (Pl. AB) in the rock paintings of the Kimberleys (Elkin⁽¹⁷⁾) had an extra-Australian derivation, and it seems possible that it was brought or diffused from Netherlands New Guinea. De Clercq and Schmeltz (⁽⁷⁾, pl. xxxix, fig. 8, No. 780, p. 56, Sieboe) illustrate a woman with a rayed headband, and an inner circlet bearing spaced spots, similar to the *wandjina*; she has a child in her womb, a point of interest in view of the relationship between the *wandjina* and spirit-children in the Kimberleys (Elkin,⁽¹⁷⁾ p. 277). Wirz (⁽⁹³⁾, Fig. 124) also shows a similar headband on the upper part of a Marind-Anim figure

ABORIGINAL AUSTRALIAN MATERIAL CULTURE.



Text Figure 9.
Angular and hook design. A. Tjurunga, Mt. Vernon, north-west Australia. B. Dayak cloth—the hook elements appear in weaving throughout the Timor Archipelago. C. Square design.

drawn on a panel of wood ; there is an ornament on the chest, and the mouth is shown. Vertenten ⁽⁸⁶⁾, p. 157, pl. xx, fig. 3) illustrates a *wandjina* face on a Marind-Anim *awong*, a painted board which stands under a shelter. Capell ⁽¹⁰⁰⁾, p. 403) concluded "that in the Northern Kimberley division . . . there exist three strata of religious beliefs, and at least two of languages . . . It was the second stratum that brought in the present degree of uniformity. This second stratum came in at an unknown date, evidently fairly ancient, probably from the direction of Timor, bringing with it the Wandjina-cult. Timor is of course only to be regarded as a stepping stone in the migration, not an ultimate source. The elements of this cult are (1) belief in super-human beings generally known as Wandjina, and ultimately no doubt headmen of early migrating bands ; (2) a system of cave paintings, as a special form of megalithic culture, coupled with the belief that the Wandjinas whose homes are in the caves have life-giving powers associated with water." Unfortunately, full accounts of the art of the Aru, Tenimber, Kei, Timor Laut and eastern Timor Islands are not available, and it has not been possible to ascertain whether the *wandjina* occur in these localities.

GROUP H. MALAYAN INFLUENCES ALONG NORTHERN AUSTRALIAN COAST.

Infusions of culture from Malaya into north-west Australia date back at least to the Neolithic era. The *pirri* point (worked on one surface only) and two Kimberley spear points (worked on both surfaces, one with serrated edges), form an example of a progressive improvement in technique ; the first and second types occur in the Neolithic culture of Java, and all three types in the Toalian culture of Celebes, south Java, and Timor Archipelago. The Toalian is a late Neolithic culture which survived until the early bronze period. These three point types were apparently introduced into the Kimberleys and north-west Australia, from where the earliest one, the *pirri*, has spread more widely on the continent than the two later forms (cf. McCarthy^{(50) (51)}). Another important contribution from Malaya during prehistoric times is the concentric circle and spiral (and associated elements) (Pl. AA, figs. 3-4) which are characteristic of bronze age ornamentation ; these art motifs diffused into the Kimberleys, whence they spread into north and central Australia, and to other parts of the continent (McCarthy^{(50) (51)}). It is possible, on the other hand, that they reached Australia indirectly from New Guinea (cf. group G).

Modern innovations are associated with the voyages of the Malay proas, especially those of the Bugis from Celebes, and the Timorese from Koepang (Warner,⁽⁸⁷⁾ Appendix I, and McCarthy,⁽⁴⁸⁾ Vol. X, No. 2, Fig. 16). Dr. Warner, in the report on his field work in Arnhem Land, says that the Malays introduced the dugout canoe with pandanus sails, smoking pipes, ceremonial mourning mast, a fashion for cutting the beard in a Van Dyke style, and an appreciation of iron and metals; to this group may be added the use of effigies of the dead in burial rites, and the floral elements in Groote Eylandt decorative art (this island was an important rendezvous for the proas).

Further to the west the angular meander design (Text Fig. 9) in Karadjeri decorative art on pearl shell pubic ornaments, *tjurunga*, shields and boomerangs (Davidson,⁽¹²⁾ pp. 130-1, Figs. 8, 24, 43-44, 46, 57, 72a) would appear to have been derived from Malaya, where the hook-like element appears in woven cloths. Excellent examples for comparison are given by Hein⁽³⁴⁾ and by Jasper and Pirngadie⁽⁴⁰⁾, Vol. II).

GENERAL DISCUSSION.

The question might now be asked as to how these historical relationships and introductions of traits have taken place. The following cultural movements have been agencies in the process:

- (1) By the Tasmanians, a few traits surviving in Australia (Davidson,⁽¹⁴⁾ pp. 56-58).
- (2) By one or more waves of the Australian aborigines, the latter arrivals bringing more advanced ideas and techniques.
- (3) By the Melanesoids who have occupied Torres Strait Islands, and infiltrated into Cape York, where they have intermarried with the aborigines. (Text Fig. 10.)
- (4) By diffusion due to trading contacts between the Cape York natives and the Torres Strait Islanders. (Text Figs. 7-8.)
- (5) By the Melanesoids who have infiltrated into Arnhem Land and the neighbouring northern Australian coast. (Text Fig. 10.)
- (6) By the fishing and trading voyages of the Malay proas along the northern Australian coast. (Text Fig. 8.)
- (7) By the Melanesoids and Polynesians employed on the Great Barrier Reef fisheries up till 1870; to this source may be attributed odd articles like combs (Hamlyn-Harris), kap kap (Reichard,⁽⁶²⁾ Pl. cxl, No. 591) and others, which have not been absorbed as

cultural traits in Queensland. To this source Hamlyn-Harris^{(32) (33)} claimed that all Papuan influences in Queensland may be traced, but in view of the evidence brought forward in the present study his view is not tenable.

It is not possible to separate all of the traits belonging to Nos. (2)-(4). In the Pacific region the chronology of the various peoples is generally considered to be Negritos (including Tasmanians), Australoids, Melanesoids and Polynesians, but this sequence has not yet been verified by archaeological data. The problem of defining the respective material cultures of these peoples is complicated by the diffusion of major elements such as betel-chewing, kava-drinking, megaliths and associated traits; thus we cannot now ascertain, as precisely as we would like, what traits these various peoples contributed, either directly or indirectly, to Pacific cultures, and particularly to Australia.

Dr. Davidson's application of the geographical distribution theory to some Australian traits^(8-14a) has considerably advanced our general knowledge of the culture, but lack of essential information has led to minor errors in his conclusions. Thus he claimed that the three-piece spear originated in central Australia, but as it occurs in Queensland, the Wellesley Is. and New Guinea, an historical relationship seems probable. Again, his claim that the serrated spear point was invented in the Kimberleys is disproved by its occurrence in the Toalian cave deposits in Celebes and Java. Some errors lie in the method: for example, Davidson accepts all Australian, New Guinea and Melanesian parallels as being due to historical relationships, and where he had no evidence of the occurrence of a trait outside Australia, he concluded that it had had an indigenous origin. The two examples given above demonstrate that this line of reasoning can be misleading at the present deficient stage of our knowledge. One must again stress the fact that the Australian problem is only part of the larger Oceanic one, and it cannot be elucidated as fully as we desire at present by an analysis of our meagre knowledge of the Pacific peoples and their cultural histories.

An attempt might now be made to explain partly, at least, the mixtures of culture traits which occur in various parts of Australia. Central Australia may be taken as an example; in this region it has been shown that the concentric circle and spiral art motifs, with associated elements, were probably derived from the bronze age of Malaya, many of the rock painting and engraving motifs and the sacred board cult have their counterpart in

New Guinea, the saw method of making fire is from Arnhem Land, the hammer-dressing technique and transverse grooving on ground-edge axes spread from eastern Australia. Similarly, there has been an intermixture of the diffusion of traits introduced through north Australia with those introduced through Cape York; for example, the spread of the lenticular chipped axe from north Australia into western Queensland and northern New South Wales cuts across the diffusion westward through the interior of the hammer-dressing technique. In my paper on trade (⁽⁴⁸⁾, Vol. IX, No. 4) I drew attention to the importance of the upper Georgina River district as a pathway of diffusion of traits from north Australia into Queensland, and vice versa, and also of the Lake Eyre tribes as a distributing medium of traits from Queensland and New South Wales to the westward and southward, and vice versa. The intimacy of the intercourse between far western New South Wales and Lake Eyre tribes is shown by the presence of similar motifs and techniques among the rock paintings and engravings in both areas, the diffusion eastward of circumcision, and the use of widow's caps and *pitjuri* from the Darling River to Lake Eyre.

I have attempted to make clear in this address two difficult aspects of the general problem, as follows: (1) that continuous distributions of traits between Australia and New Guinea do not necessarily constitute a diffusion from north to south, although we can definitely say that they form an historical relationship, and (2) that discontinuous distributions of widespread traits can be understood only by a more detailed knowledge of the prehistoric movements of peoples, of trade and migration routes, and of the diffusion of various techniques and objects. The latter point is well brought out by Williams in his remarks on the Trans-Fly region, western Papua (⁽⁹¹⁾, pp. 44-45), in which he says: "In this region we have to deal with a number of different peoples and cultures . . . there is more than one layer in the cultures of the Morehead district and it is evident that the layers are not assimilated to one another." Haddon (⁽⁹¹⁾, Introduction, p. xxxiii) adds that "the evidence from the south-western portion of New Guinea, as well as that from the Gulf of Papua, clearly points to the conclusion that all the various cultures have travelled from north to south, and with but minor secondary movements from west to east. The immediate area from which the cultures here considered (Trans-Fly) came is that region of the middle Fly where it is joined by the Strickland." Thus, by the influx of these new cultures, discontinuous distributions are caused, and many traits which formerly existed disappear. Haddon's study of the migrations of cultures

in New Guinea,⁽²⁹⁾ and of the migrations of peoples in New Guinea, Torres Strait and Australia (⁽⁵⁾, Vol. I, pp. 384-413) should be referred to in this connection.

The north to south cultural drift has been continued into the Torres Strait islands and Australia, and also into Arnhem Land. In regard to this diffusion, there is a vital need for a comprehensive study to be made of the movements of the culture-heroes of New Guinea, Torres Strait and Australia, because their incorporation into Australian culture was accompanied by ritual paraphernalia, weapons and other articles. Thus the bullroarer and other traits apparently form elements of an initiation cult, *balum*, of which a novice-devouring being, *sosom*, forms a feature, which diffused from northern New Guinea southward, penetrating into eastern Australia (Haddon,⁽⁵⁾ Vol. I, p. 265); both the Sivrri and I'wai culture-heroes brought with them the double-outrigger, dugout canoe, skin drum and initiation ceremonies performed on a taboo ground in which there is a sacred enclosure; the funeral ritual of the Koko Y'ao is associated with the *okainta* initiation ceremonies, which are a modified *horiomu* from Torres Strait (Haddon, quoting Thomson,⁽⁵⁾ Vol. I, p. 269); dancers wearing animal masks were an essential feature of the I'wai cult but were apparently subsidiary in the Sivrri (Haddon⁽⁵⁾, Vol. I, p. 272); within Australia, Spencer and Gillen, Howitt,⁽³⁹⁾ and others have recorded the spreading of numerous traits by culture-heroes. Haddon (⁽⁵⁾, Vol. I, pp. 384-413) has discussed the probable relationships between the hero-cults of Australia, such as the *Alchera* of the Arunta, *Mura Mura* of the Lake Eyre tribes, *Baiami* of south-east Australia, etc., with those of New Guinea, and the higher culture they introduced into Australia.

Haddon (⁽⁵⁾, Vol. I, p. 209) concluded that "the trading operations, when taken in conjunction with the cultural and linguistic evidence, limit Papuan influence on Torres Strait to the area of Papua from the estuary of the Fly westward, and it seems probable that the direct cultural influence of Kiwai was very slight, if indeed, there was any. It seems to me unnecessary to consider the peoples east of the Fly estuary, or those up the Fly River." The Torres Strait islands, in turn, have acted as a transmission line of culture diffusion into Cape York; similarly, the islands of the Arafura Sea form the links whereby traits have spread into Arnhem Land. Evidence is also available which suggests that cultural influences from that part of Papua east of the Fly River have reached Australia, and the spread of pipe-smoking and the *balum* initiation cult from northern New Guinea via the

Fly River have penetrated into eastern Australia. Finally, it is now apparent that the claim of Hamlyn-Harris^{(32) (33)}, Thorpe,⁽⁷⁵⁾ Kenyon, Mahony and Mann,⁽⁴¹⁾ that New Guinea influence in Australia is only "skin-deep" is no longer tenable.

There are a number of traits of great practical and economic value in the culture of the Papuans and Melanesians which have not reached Australia or have not penetrated the continent to any appreciable extent. Thus the aborigines have adhered to their nomadic mode of life and have not changed over to agriculture (for reasons already discussed in the introduction). The adoption of a currency would have facilitated trade and have formed a valuable insignia of status, while stone club-heads and the bow and arrow would have formed useful additions to the weapons used in Australia; the gong, skin-drum and pipe-smoking have only reached the coasts of Arnhem Land and Cape York, and yet each one could fulfil a useful function in aboriginal life. One is led to the conclusion that these traits were comparatively late arrivals in the Pacific and sufficient time had not elapsed for them to have diffused into Australia.

SUMMARY.

The material culture of Australia is shown to have been influenced by a number of factors which have caused local variations; these local variations are classified into regional groups. Certain traits are survivals of the Tasmanian occupation of the continent. Traits have been introduced into Australia from New Guinea via the Torres Strait islands and Cape York, and via the Arafura Sea islands and Arnhem Land. Some traits have been introduced into north-east Queensland from the Torres Strait culture. There are parallels between New Caledonia-New Hebrides and eastern Australia which suggest an historical relationship. Malayan influences are present in north Australia. The infusion of traits has apparently been a continuous process since prehistoric times. It is asserted that the problem of Australian culture composition is insolubly bound up with that of Oceania. Many problems are posed for which no plausible explanation may be offered at present. Many other points in the general problem are discussed.

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ABORIGINAL AUSTRALIAN MATERIAL CULTURE.



Text Figure 10.

Fenner's map of Australia, showing distribution of the different types of skulls. A. Southern type. B. Coastal Northern Territory type. C. Queensland type. This author concluded, from a study of the non-metrical characters, that the occurrence of these different types is due to at least two factors : (a) the prehistoric Australian race was not a pure one, but the result of the fusion of an Australoid with a Tasmanoid stock, and (b) there has been a later wave of Papuan, and possibly Malay, infiltration into the northern part of the continent.

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FREDERICK D. MCCARTHY.

Australia : General.**Enright.****Notes on the Aborigines of the North Coast of N.S.W.***By W. J. Enright, B.A.***XII. LANGUAGES.**

It is rather remarkable that, although New South Wales was the first part of Australia to be settled, so little has yet been published on the language of its aboriginal tribes. There are many vocabularies, and those mostly of a scrappy nature, and the only complete grammar of any tribe is that by Threlkeld. The grammar of the tribe which I have called the Katthang was discovered by Professor Elkin to be the Worimi, whose language was the Katthang. This grammar is very incomplete. That of Mathews and Miss Everitt on the Thurrawal language is better, but not as complete as Threlkeld's. Ridley, who was a scholarly man, a product of one of the English universities, collected some incomplete vocabularies of various tribes in northern and north-east New South Wales, but published nothing regarding the grammar of a New South Wales language except the Kamilroi, and that was not complete. Schmidt, the learned editor of *Anthropos*, has described the language of the area occupied by the Worimi as the second oldest in the world, and that of the Yuin who lived on the south-east coast of New South Wales, and that portion of Victoria adjoining it, as the oldest. I am not in a position nor am I competent to criticize his opinion, but the language of the Worimi was very primitive. The same word was used for "I" and "I am," another word meant "we" and "we are."

A comparison of the vocabularies of various tribes or sections of tribes along the east coast from a point a little south of the Clarence River to Botany Bay shows no great variation amongst them. In making that statement one must take into account that very frequently records of the vocabularies were gathered or obtained from men who had little or no education, and that others who had more education did not have a uniform standard of values of the letters of the alphabet they used in placing on record native words. The cases of the nouns were formed by suffixes, and want of knowledge of that led to differences in recording aboriginal names. Want of knowledge of conjugations of verbs would lead to similar errors. Another factor that has led to misleading statements is that the native was a keen naturalist.

He distinguished the different species of animal and vegetable life, and in some, if not all, cases had one name for the female of the species. On one occasion I heard a resident of the Newcastle district who took a

keen interest in the aborigines say that the language of the Lake Macquarie natives differed from that of the natives of Wyong district, and gave as a reason that there was a different word for opossum in each district. As he could not say which species of opossum either name applied to, his argument failed completely. Similarly, in our east coast district we have three species of ironbark. The unlettered native has a name for each, but ask persons who are not interested in the timber trade, botanists or nature students, and most of them only know a tree of any one of the species as an "ironbark." There might be three different aboriginal names collected in three different localities for the "ironbark," but as the inquirer did not recognize the difference in species, he would conclude that there were dialectic or linguistic differences.

During my association with the tribes living on the coast district north of the Hunter River, I learnt that the Kamilroi visited the Worimi of Port Stephens when a Keeparra (initiation) was being held, and after the conclusion of the ceremony exchanged gifts with them. Old intelligent Worimi natives informed me that they had no difficulty in understanding the Kamilroi. Were it otherwise, participation of people of one tribe in the ceremonial of another would have been difficult.

The Brippai who live on the Hastings River had no difficulty in understanding the Kamilroi or the Danghetti, whose territory extended to the boundaries of that of the Kumbangerai. There is a piece of country in New England wedged in between the lands of the Danghetti and the Kamilroi which is occupied by a number of small groups frequently referred to as tribes, of whose language I can find no record.

Mathews described their initiation ceremony, which was called the Burbung, but has left us no record of the language. What I have stated above shows that practically the same tongue was spoken from the Clarence to the Hawkesbury and from that river to Walgett and Moree. The natives of the Clarence River spoke a language very different from those of the country to the south of them. My authority for that statement is that of old Worimi natives who told me that Kamilroi was a "nice language," an "easy language," etc. Kumbangerai they referred to as a "hard language," or "one they could not understand."

Dr. Capell, whose authority on linguistics is established, has studied the Kumbangerai language, but so far the result of his studies has not been, but I am informed will be, published.

Assuming my conclusions are correct, it appears that the Clarence River is the boundary between two classes of migrants, one of them travelling down the east coast, and the other from the north-west.

As the tribes south of the Manning did not have the marriage sections, although their neighbours the Kamilroi and Brippai, with practically the same language and initiation ceremonies did, further questions are suggested:

- (a) Was the cult of marriage sections gradually penetrating easterly and south-easterly?
- (b) Was it a custom of the Kamilroi acquired from tribes further north and west which would have been adopted by the Worimi if white settlement had been delayed a little longer?
- (c) Did the marriage customs of the Kamilaroi branch east from the Kamilroi to the Danghetti and Brippai?

I doubt if those questions will ever be satisfactorily answered. The material has been lost. I think, however, we can safely conclude that the Kamilroi sectional system was gradually extending.

The Keeparra was the great school where different tribes met in friendly intercourse and imbibed from each other knowledge of various practices which would be considered by their respective headmen and adopted if they appealed to them. I have had evidence that tribes borrowed from each other emblems in wood or stone engraved with various symbols and the accompanying ritual songs. I have known of one of those pieces of wood to travel from the Macleay to the Tweed River. That travel extended over a period of years. The words of the song would travel with it and be used even by tribes who did not understand it. At some Keeparra it has perhaps attracted the attention of the headman of a visiting tribe, and when his tribe decided to hold a Keeparra he would mention it to the meeting of headmen who would, if they approved of it, instruct the messenger who carried the invitation to the neighbouring peoples to attend, to ask for the loan of the particular article which would, with others, be carefully secreted away after the conclusion of the teaching of the initiates.

Recently Mr. A. Edwards of Salisbury told me that his father was shown a tree on the upper part of the Chichester Valley, near an old ceremonial ring still visible, in which were secreted the ritual pieces. After examining them he replaced them. That occurred about seventy-five years ago. The tree itself has long disappeared. Perhaps before it disappeared the natives removed those objects which were sacred to them.

I was to have been entrusted with the collection of a north coast tribe who thought that the days of the Keeparra were numbered, but an uncautious answer on my part aroused the ire of one man who said he would never be a party to handing them over to be put in a museum. Professor Elkin, who was present, endeavoured to get over the difficulty caused by my blunder, but failed.

W. J. ENRIGHT.

PROCEEDINGS OF SOCIETIES : NEW SOUTH WALES :

Easter Island. *Summary of a lecture delivered before the Society by Mr. R. W. Gosset on 18th February, 1940.*

Easter Island, probably one of the loneliest islands in the Pacific basin, is situated in latitude 27° 10' south (about the same latitude as Brisbane), and lies 2,030 miles westward from the coast of Chile—to which country it belongs—and 1,500 miles eastward from the nearest inhabited land, excepting Pitcairn Island. Since the 5th April, 1722, when it was first discovered by Roggewein in the ship *Arend*, there have been many wild hypotheses advanced as to the origin of the statues and their cult.

Scattered over all the islands of the Pacific which have been visited and settled by the Polynesian race are numerous megalithic remains and earthworks ; immutable evidence of the ancient cults and also the skill of this great people in stone work. The Polynesians were also the greatest neolithic navigators and geographers of their era. They visited and named every island in the Polynesian Pacific area. There are authentic records of many voyages to Easter Island from New Zealand, Tahiti, Rarotonga, etc. It appears that the first Polynesian voyager to the island was the chief Hotu Matua, from Marae-unga (Mangareva). He and his people came in two canoes about A.D. 1250, and settled on the island. The Mangarevans apparently were not workers in stone, but they brought with them the art of carving, which art has persisted to this day. Some fifty years after Hotu Matua came, a Marquesan migration arrived, and according to tradition, to this migration is attributed the introduction of the cult and carving of the massive stone figures. There were definitely several separate Polynesian migrations to the island, for Churchill has determined that there exists in the Easter Island dialect (besides the original Mangarevan), a large proportion of Marquesan, Tahitian and Tuamotu words.

Apart from the statues on Easter Island, of which there are estimated to be 700 altogether, other cults and arts existed which are unique in the Polynesian sphere. For example, there are the huge *ahus* or stone burial platforms, which are estimated to contain some tens of thousands of human skeletons, the long, low "canoe" houses, built of stone because there was no timber on the island to build the usual type of Polynesian house ; the "script", first reported by Brother Eyraud, an early missionary to the island, and which has never yet been deciphered. Lastly, there is the "bird cult", which deals with the obtaining of the first sooty tern's egg of the season, with all its attendant ritual and ceremony. This latter cult is certainly of very ancient origin, as the egg has been from time immemorial the symbol of fertility and life.

In the last decade or two an immense amount of light has been shed on Easter Island, its people and their cults, as a result of intensive research work by such Polynesian scholars as Mrs. Routledge, Mr. Churchill and Dr. Peter Buck. The outcome of all this work would seem to prove that the Polynesians were undoubtedly the first settlers and that they alone introduced all the arts, crafts and cults. It can be definitely stated that up to the present not a tittle of substantiating evidence has ever been adduced to prove that any other people ever lived on the island.

The so-called "mystery of Easter Island" lies not in the incidence of the statues and cults, but in the forgotten engineering skill which was necessary for the quarrying, transport, (in some cases a distance of twelve miles) and erection of these stone figures (some of which weighed up to thirty-five tons). It must be remembered that there was no timber or rope-making material to aid the people. In conclusion, I would quote the words of Dr. Buck, the greatest Polynesian anthropologist of this day, who says: "The resurrection of an extinct civilization from a sunken continent to do what the Easter Islanders accomplished unaided is surely the greatest compliment ever paid to an efficient stone age people".

The Languages of North-West Australia. *Summary of a lecture delivered before the Society by Dr. A. Capell on 19th March, 1940.*

The lecturer gave a preliminary account of the results of his field work in north-west and north Australia in the years 1938 and 1939, carried out under a Fellowship of the Australian National Research Council. He showed that Australian languages can be divided into two great groups, suffixing languages, which occupy the body of the continent, and prefixing languages which occupy the Kimberley area, the western half of Arnhem Land, the Daly River area and the strip of coast between the Ord and Victoria Rivers. He gave an analysis of these, showing that three types exist. Whilst all conjugate the verb by prefix, and nearly all incorporate the pronoun object, the Northern Kimberley languages classify nouns into a number of groups, with sentence concord of adjective, pronoun and verb, and in some cases adverb; a second group has a simple division of nouns into masculine and feminine, with corresponding double concord, while the third has no differentiation of noun groups at all. He gave some notes on the languages of the commoner type (suffixing languages) bordering on these, showing especially the interesting type assumed by the Mudbura language group centred about Wave Hill, the upper Ord River, and stretching inland to a still unknown distance, certainly beyond Tanami and the Granites. He also had something to say on the subject of physical types, and in regard to the prefixing languages he pointed out their structural resemblances to many Papuan languages. At the same time he was careful not to assert that they are Papuan languages themselves. Some elements of culture have come in from sources as yet unknown, for example the cave cult associated with the name of Wandjina in the Northern Kimberleys, but the evidence is as yet insufficient to show whence and in what form this influence came into Australia.

Members' Evening. *Summary of a selection of lectures delivered before the Society by Mr. R. M. Berndt, Miss A. D. M. Busby and Mr. G. P. Whitley on the 16th April, 1940.*

Mr. Berndt gave members a preliminary account of his work among the Jaralde people of South Australia.

While at Murray Bridge, the lecturer was assisted by Mr. James Wigley, an artist. He obtained many fine studies of the natives living on the reserve there, and especially of two informants.

Both these informants were of the Jaralde tribe, which inhabited the eastern banks of the lower Murray, extending its territory to the eastern and western shores of Lake Albert and the eastern shores of Lake Alexandrina.

Patrilineal clan totemism is found in this region. This system was studied, together with man's relations to his totem. The sending forth of one's totem, or totem spirit, to warn or deliver a message to a friend in the camp or at a distance is a feature of the culture.

The legends of this region are of two types, the personalized Bird Myth telling of totemic ancestral beings, and the Hero Myth relating to the wanderings of human ancestors. In the former case these ancestral beings are identified with the animals and birds found in the surrounding country, and are adopted as totems by the aborigines.

In the latter case the ancestral being is regarded as a culture hero, who instituted tribal codes, ritual and ceremonies.

Examples of such stories will be found to belong to several tribes, and not to a special totemic group. The ancestral being will wander through the different territories and become identified with certain geographical features, which henceforth are held sacred. Such sites as he is responsible for or has visited are places of pilgrimage, and in the old days rites were probably performed there. An interesting example of such a legend is that about the wanderings of the ancestral hero Ngurunderi, who travelled through the tribal country of many natives. Each clan, each tribe possesses a part of the great legend which, when pieced together in sequence, produces a series of events which are important to an accurate understanding of native mythology.

There is no circumcision or subincision in this area, but only the pulling of the youth's pubic hair and beard. At a certain period in the ceremony the initiate is red-ochred, symbolizing his ritual death and, after an intermediate period, his re-birth and entry into society and his subsequent marriage. With reference to the red-ochring, it is seen later that upon death the deceased, after three days, is red-ochred and set up upon a platform for smoke-drying or interred as the case may be.

The psychic life of the two informants was studied. Many claims to psychic powers possessed by them are made quite as a matter of course. They know what is happening at a distance, with, and sometimes without, the aid of a mysterious power within them. This prescience is often associated with involuntary bodily movements, spirit-doubles and totems. The seat of their mysterious power is the stomach.

The medicine-man works good in the society, but he does sometimes act as a sorcerer who takes "fat" and practises magic for the purpose of causing sickness and death. The functions of the medicine-man, as distinct from those of the sorcerer, are to diagnose and cure illnesses, to hold meetings of tribal elders, to conduct "inquests", to interpret psychic experiences, and to have, himself, communication with the spirit-world so that he will be able to foretell events.

The medicine-man will cure a sickness by such methods as removing bones from the patient, by drawing out the pain with human-hair twine anointed with caul-fat and by sucking and massaging. Herbs are also used, as well as steam baths.

The Jaralde do not believe in natural death. Its cause is directly or indirectly due to magic.

The following forms of magic are practised by sorcerers in order to bring about death.

Ngadhungi is a piece of bone obtained from an intended victim's meal. This is then pointed at one end and red-ochred. Fat, from a deceased person, with red-ochre and an eye of a Murray cod (so that the bone will be able "to see") is moulded on to the unsharpened end. This is then melted over a fire so that the person towards whom the sorcerer is projecting his thoughts will sweat away and die. A special curse is said at the same time. *Millin* is the method by which a victim is "bruised" by being tapped upon the chest with a club whilst unconscious. *Neildjeri* is the pointing bone or poison revenge method. A kangaroo or human forearm bone is used, the length being about seven inches. This is sharpened at one end, and putrefying fat is put on that point. This is then held, in a special manner, in the direction of the victim. The sorcerer repeats the phrase, "Curse you, so and so" in his mind. Its efficacy is assured, as after a short duration the person hears of what has happened and the magic spell soon takes effect. Often the victim is scratched with the poisoned bone. This results in an early death. *Taramin* is the avenging expedition method. In this ceremony the victim is rendered unconscious and his caul-fat is removed. Grass is then inserted in the incision, the wound closed up, and the person restored to consciousness. The latter returns to his camp and is in perfect health for a day or two, but generally dies on the third day. Needless to say, these happenings are impossible, though the belief in their possibility is very real.

Among other interesting subjects are the burial customs practised by the Jaralde tribe. Desiccation, tree-burial and earth-burial were all in vogue in the early days. Smoke-drying over a slow fire was the first to disappear, owing to the objections of European settlers, who disliked the smell. However, this form of preserving the dead played an important part in the native community. Also, fat was removed from the corpse and pointing-bones stuck or hidden in it during the process of desiccation.

The beliefs in spirits of various types, both malignant and good, were collected, together with some omens and warnings.

The spirit of the deceased travels along Ngurunderi's track, and after staying an undefined period on Kangaroo Island, the "Spirit-World", it goes to *Waieruwar*, the sky, where Ngurunderi resides.

As an interesting sidelight on Maori events and of the customs of a century ago in New Zealand, Miss A. D. M. Busby read two extracts from the private letters of James Busby, who was British Resident in New Zealand from 1832 to 1840. Here are the extracts as read:

(1) "... I set out for Mangungu, but on the way I met a young native, who said that he was about to attend a meeting of his tribe. I inquired as to the purpose of the assembly, and he replied that it was a gathering of 'friends' to learn witchcraft (*maketu*) from the American negroes, from the whalers then lying at Hokianga. I immediately turned aside from my way and went with him into the bush. After about an hour's walking through the undergrowth, we came to a space cleared in a circle. Here were some twenty or thirty natives of New Zealand seated round the side, and in the middle was a sort of brushwood altar with some articles on it, and busy about it three or four negroes, who were, by signs, apparently instructing a New Zealand tohunga in some mystic rite. With the New Zealanders were four or five white men from near Hokianga who were known to me as being undesirable characters, and these men were already under the influence of intoxicant. The negroes were also either

intoxicated or in a state of religious trance. One of the white men, I was told, had mixed his rum with *tutu* wine, and on inspection I found that he was dead. Another was in a state of paralytic rigidity, but alive. I immediately told the New Zealanders that evil was abroad, and to break up the meeting, which they did, some of the men assisting me to attend to the sick white man as best we could under the circumstances. They made a sort of stretcher and carried him to the house of a settler some miles away . . . The negroes remained at the meeting place, but none of the New Zealanders . . ."

(2) ". . . (speaking of his own daughter) . . . And she is not the only child who has left this earth from the effects of whooping cough and the wasting which followed . . . And all this sorrow was caused by the action of the captain of one of the American ships which called (at the Bay of Islands) . . . and having seamen ill from whooping-cough, landed them at Kororareka . . . From Kororareka the disease spread to Paihia, where the mission school was closed for lack of scholars . . . A peculiarity of the disease is that although the children throw off the cough fairly soon . . . they could not regain their strength, and a sort of wasting overtook them . . . Pakoo, a native woman who comes here to learn sewing (from my wife), has a child the same age as our dear little one. Her child also suffered from the cough, but she, with the other women of her race, when the children would not fatten, collected the small green caterpillars from the potato vines and, after removing the skins, gave the pulp to their children mixed with their food. She brought a leaf of these insects to us and tried to persuade us to give them to Agnes, saying that if she ate them she would soon grow well and rosy like her own child. But this we could not bring ourselves to do . . . Is it possible that the tender young worms held some healing essence? I confess that I have a doubt in my mind that perhaps we should have tried them as a cure, with the example of the native children regaining their health . . . as they undoubtedly have done. Do not the aborigines of Australia eat the grubs from the bark of the trees and say they are nutritious? . . . It is a fearful thought that if by our prejudice we have allowed our child to go from us . . . Several of the elder native children have died . . ."

Mr. Whitley entitled his talk "Ye Gods and Little Fishes", and pointed out that . . . fishes have a direct bearing on several aspects of anthropology, in its broadest sense. In mythology there are many creatures, half-fish and half-god or man, such as mermaids, the makara, and fish-gods like Dagon, Ebisu and even Vishnu in one of his forms. Then there are widely dispersed fish myths, like the fish which swallows the ring (solar symbol) and restores it to some lucky captor and the ancient regard for fish as sacred beings, still perpetuated in modern Christianity in modified form. Fishes are noticed in heraldry, witchcraft and divination.

There are few Australian native legends concerning fish, but Polynesia has a rich store of them. Aboriginal fishing methods with nets, hooks, spears, etc., and the stone traps of North Queensland, Brewarrina and elsewhere are of much ethnological interest. Spines of stingrays are made into spears, some, having up to thirty-five spines, being of ceremonial or sacred significance only. The Maori had marvellous methods of catching fish, and a minute knowledge of the species and their habits. Fishes appear in Australian rock carvings, bark paintings, etc., and masks for dances relating to sawfish, sharks, kingfish, etc., are found in Torres Strait. Increase ceremonies are held for certain fishes, whilst others are regarded as totemic. The extinct Tasmanian aborigines are said by some authors to have eaten no fish,

or very little. It is a pity that fishes are often recorded under their native names or by obscure vernaculars in anthropological literature. If a few specimens could be preserved and submitted to a museum for scientific identification, important information would be obtained, much of which is at present lost. The native names of species of fishes in the Pacific islands, when properly classified, may have considerable bearing upon deducing the dispersal of races in the past.

SOUTH AUSTRALIA :

Primitive Man's Philosophy of Life. *Summary of a lecture delivered before the Society by Rev. H. H. Lowmyer on 28th February, 1940.*

The lecturer briefly outlined a few of the aspects of this large subject, traced the growth of intellectual development in various groups of primitive man, and made interesting comparisons between primitive man and those of later groups.

The Drama and Theatre Arts of the Aborigines. *Summary of a lecture delivered before the Society by Dr. T. D. Campbell on 1st April, 1940.*

The lecturer stated that among the many aspects of aboriginal life there is opportunity for inquiry into the origins of human cultural activities and thought. For example, in their corroborees and sacred ceremonies anyone interested in drama and the theatre arts can find a wealth of enlightenment. Human impressions and ideas can be expressed in various ways : by speech, poetry, song, dance, mime, acting, painting and sculpture. Among primitive groups these means of expression are seldom used singly, but often in combination. This is obviously the case among the Australians.

The corroboree, or evening play-about performance, is limited as a means of artistic expression. It is mainly a pleasant evening of song and dance—primitive community singing and folk dancing. To some, this may seem perhaps a dull, monotonous, crude and childish type of entertainment. Nevertheless, as an example of primitive expression of human feelings and interest it is exceedingly important as an indication of the development of these particular modes of human expression.

The sacred ceremonies teem with interest from the theatre point of view, for in these we find that the desire for personal expression in the telling of tribal folk lore and history is given tremendous scope. Here we hear and see music (by vocal and percussion means), mime, gesture, movement, make-up, body decoration, stage properties, lighting effects, all used with considerable effect.

The aboriginal actor frequently displays in his work technical skill and finesse which are truly astonishing. His art in mimicry is remarkable ; thus the expressions, movements and gestures of animals and birds (his totemic ancestors) are extraordinarily well portrayed ; and with just that subtle mixture of naturalistic and stylized expression which at times is astonishing in its cleverness. Besides these "stage" performances of straightout mimicry there are many occasions when one sees displays far more subtle in design and technique. In addition to story telling by mere mime and song, there is the clever expression of emotions, moods, and ideas. For example, a certain dog ceremony was exceedingly impressive. The old native who played the leading rôle expressed with great sensitiveness his anxiety at the loss of his dogs (ten or a dozen aborigines with extremely clever stylized make-up) ; his patient, eager search ; his complete change of demeanour when he found them (lying behind

a mere scrap of a bush on a rather open, empty "stage"); his triumphant homeward journey. A perfect little five-minute one-act play into which was concentrated the task of possibly hours and miles of anxious search. Or, again, the idea of stealth and careful progress expressed in a Kadaitja ceremony, wherein the main motif is emphasized by the somewhat exaggerated and stylized leg movements in particular. Or another example, in which the meanderings of a creek channel are so admirably depicted in the swaying, turning movements of a moving line of fifteen to twenty men.

Other examples were related which illustrated the work of solo, duo and concerted performances, and which showed the obvious plan and sequence underlying what may sometimes appear to be carefree and haphazard movement and grouping.

With various illustrations and specimens, the lecturer showed that while the aboriginal may not possess the refinements and complexities of modern stage equipment, settings, make-up, dress and accompanying music, yet his own method of artistically portraying his legend and history is fundamentally the same; and he frequently attains an extraordinary high standard of "stage" skill and subtlety. It was stressed that in the aborigine's vehicle for artistic expression we see, in a primitive, yet well developed scale, the same basic technique as is used in the modern ballet.

At a subsequent meeting Dr. Campbell screened two reels of motion picture film which he had arranged from a selection of scenes from University expedition films, and these served to illustrate many interesting features of his lecture concerning the aboriginal "theatre"—the stage, make-up department, the chorus, dance, mime, movement and gesture; and various performances illustrating technique and types of performance.

Recent Discoveries of Human Fossils. *Summary of a lecture delivered before the Society by Professor F. Goldby on 29th April, 1940.*

The lecturer first discussed briefly the position and origin of the order Primates in the Tertiary geological epoch, and traced the growth onwards, discussing at length the discovery at Swanscombe in England in 1935 of the fossil portion of a human skull.

The relationship of some of the later finds to the problem of the affinities of Neanderthal man was discussed, and a short description given, illustrated by photographs, of the latest and most perfect example of a Neanderthal skull discovered at Monte Circeo in Italy in 1939.

Following Professor Goldby's address Dr. T. D. Campbell spoke at length on the dental characteristics and aspects of the Cohuna skull, mainly of the dental aspects of the reconstructed skull. In his opinion the reconstruction of the anterior portion of the dental arch was incorrect, being more Simian than it should be. Compared with the Aborigine's jaw, this defect was very apparent. Dr. Campbell then exhibited models of his own preparation which indicated his idea of how the jaw should be modelled.

Mr. Tindale, referring to the Cohuna skull, during the discussion which followed, stated that he had visited the site of the discovery of the skull, and was convinced that a thorough examination and sifting of the ground in the vicinity would probably reveal some teeth, for he found several fossil fragments of bone and also fossils of shells of a type now extinct, together with other types which now exist.

Observations in New Guinea. *Summary of a lecture delivered before the Society by Mr. A. N. Chittleborough on 27th May, 1940.*

The lecturer based his address upon some observations made while acting as navigator

to Mr. Ewan Stanley, a Commonwealth Government geologist who explored the route from Yule Island to Buna in 1920.

The distance traversed was 130 miles, and occupied 138 days. The route was very hilly and the undergrowth difficult to penetrate. The average height of the ranges was 11,000 feet, and the mean day temperature 87° F. The climate was very even during the hours of sunshine, but became very cold at night.

Mr. Chittleborough found the native carriers easy to handle when treated as humans. The lack of food was apparent, and no doubt influenced cannibalism. The only game available was a species of small wallaby, kangaroo, rats, wild pigs and various birds. Food was prepared by either boiling, roasting or frying. Implements used by the natives were either of stone, bone or hardwood, the only metal in use being obtained from the whites.

The villages were built in compounds cut out of the dense forests. The houses erected were built upon poles raised above the damp level, and are considered to be some of the finest native dwellings in the world. It was customary to burn green coconut fibres on the ground under the houses to ward off the attacks of mosquitoes.

Skin diseases were common, but quickly responded to treatment. On the islands it is generally considered that the unbalanced diet contributed to this malady; other authorities claimed that the lack of salt in the interior had a similar effect and also retarded growth, for there were pygmies in Dutch New Guinea.

Certain social differences existed between the natives of the hill country and those of the coastal regions. These social clashes repeatedly caused native carriers to desert. The natives are musical, and express themselves in a sing-song manner.

Members of the German population were not able to enunciate clearly the native language as most of the words started with tongue consonants and pidgin English had been introduced. The dialects enabled one word to have different meanings by varying intonations, and in this respect were somewhat similar to the Japanese and Chinese languages. The men did not leave all menial tasks to the women as was common among most native peoples.

Purple sugar cane and sago were popular foods, and a beverage made from sugar cane had great sustaining qualities.

Feasts were common and lasted from four to five days, and during these feasts large quantities of an extract of sugar cane were consumed, this drink having very potent qualities. The number of human skulls collected was an indication of power, and consequently were conspicuously exhibited. Various burial ceremonies were described by the lecturer, who stated that it was a common practice when building a chief's house to bind a native to each corner pole of the structure and bury them with the pole butts as part of the ceremony.

The lecturer found that the natives made excellent telegraphists in civil life and were able to memorize codes with ease.

The islanders used a number of methods for sending messages: smoke signalling, shell blowing, whacking sticks on hollow logs, drum beating and, possibly, telepathy.

Vanimo Coast Natives. *Summary of a lecture delivered before the Society by Mr. K. H. Thomas on 22nd July, 1940.*

The lecturer first projected several photographs, depicting the locality which he had patrolled and showing the type of houses and inhabitants found in that region.

The leadership of the people in the region of the Vanimo coast is hereditary. Knowledge

of magic and ritual is important, and this knowledge is passed from father to son, although at Vanimo magic is not very much in evidence.

Descent is patrilineal, and the land owned by the father at his death is divided between the sons and unmarried daughters.

The race was somewhat intermixed and showed definite signs of Malay infiltration, the nose being almost Semitic in shape and the broad flat nose not much in evidence.

Malays visited this coast, hunting for bird of paradise plumes, and traded various items in exchange.

The diet of the people consisted mainly of sago, although Indian corn and other vegetables had been introduced and formed the staple diet.

The villages were scattered along the coast and the natives engaged in fishing for shark, turtles and other kinds of small fish. The elder men usually ventured out to the outer reef and speared fish, while women and youths remained in shallow water with fish spears. When fishing in rivers, a narcotic weed was used to stupefy the fish, but apparently it had little effect on those who consumed the fish. However, large quantities of the root were poisonous and were used by natives wishing to commit suicide.

Marriage was strictly monogamous and payment for the bride was made with glass beads, the quantity being arranged so that most of the relatives of the bride participated.

The system of kinship was rather elaborate and complicated and the lecturer devoted some time in explanation. A young man is usually educated by the mother's brother, who acts as sponsor in all arrangements concerning the young man's welfare.

Briefly outlining the customs at childbirth, the lecturer stated that the father usually retired when the mother was about to be delivered, and apparently suffered a good deal during the period, for he had seen men looking very haggard and drawn after the mother had given birth to a child. He could not explain this psychological reaction, but there was apparently no doubt that the father had all the evidences of having suffered pain. After childbirth the placenta was buried by women attendants, and men were not allowed to come near the burial place.

In the burial of dead men, women carried the body to the burial place, and the calabash generally worn by the departed was carried by the widow. A period of mourning was observed and when grass grew on the grave it was considered that the spirit had departed to a special home for the dead, usually depicted as one of the islands off the mainland.

Mr. Tindale then exhibited specimens from southern New Guinea of Tapa cloth and some pottery. It was interesting to note that the pottery had developed from shapes of coconut prototypes. The potter's wheel was not used, the vessels being moulded in semi-spherical or semi-elliptical shape.

Dr. T. D. Campbell stated that he was anxious to procure photographs of the natives of the lower south-east of South Australia, the Booandik tribe.

Very little was known of these people, and descriptions of them varied considerably. He was anxious to gather material of physical anthropology of these aborigines and although the photographs he exhibited were useful, he appealed to members to assist in the endeavour to collect more.

Dr. Campbell also exhibited two interesting osteological specimens, one, the tibia of an aborigine, with what was apparently the head of a glass spear embedded in it, and the heel bone with a shark's tooth embedded.

VICTORIA :

A Survey of New Guinea. *Summary of a lecture delivered before the Society by Mr. J. A. Davidson on the 10th April, 1940.*

Mr. Davidson opened with a description of the physical features of the eastern portion of New Guinea, being that part of the country with which he was familiar, illustrating with maps the area he had traversed and the location of the various tribes.

A series of pictures was shown of the types of Papuan natives, their dress and ornaments, and canoes and other vessels used.

The photographs also showed scenes along the Fly River, the dense jungle encountered, the native villages and some of the pygmy tribes of the highlands first described by Mr. Hides.

The lecturer concluded with a description of the customs and work of the inland natives of New Guinea.

Among our Northern Islands. *Summary of a lecture delivered before the Society by Mr. Charles Barrett, C.Z.M.S., on the 31st July, 1940.*

Mr. Barrett had recently undertaken a lugger trip throughout the northern islands from Darwin to the Gulf of Carpentaria, and his lecture covered his personal experiences on the trip and dealt with the life and customs of the island natives.

A number of excellent photographs was shown, illustrating in particular the burial customs, and the painted caves of the Wessell Islands.

Mr. Barrett also exhibited specimens of painted skulls, etc., collected on his trip.

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REVIEWS

Creed of a Government Anthropologist.

By F. E. Williams, M.A., B.Sc. *Report of the A.N.Z.A.A.S., Vol. xxiv, pp. 145-159. Canberra, 1939.*

Mr. Williams may just as well have entitled his address "The Creed of a Social Anthropologist", for indeed that is what it is. In the introduction he bravely renounces as "side-issues" those departments of study known to us under such terms as physical anthropology, prehistoric archaeology, ethnology and the study of material culture. To him, a government anthropologist is and must be a social anthropologist. He also says that "if any kind of anthropology can claim to be of practical use, it is this which we call the functional, for its subject of study is just what we have recognized as our real problem, viz. how people, whether black or white or black *cum* white, contrive to live together in society".

However, he lays no claim to membership of the functional school. In fact, he has made this address the opportunity for an attack upon what he claims is a functionalist fallacy, to wit, the belief that in a primitive culture all things work together for good.

It is the opinion of the reviewer that Mr. Williams has unwittingly set up an Aunt Sally and then proceeded, with a great deal of "wit", to knock it over. It cannot be fairly claimed that Professors Radcliffe-Brown and Malinowski, the leaders of the Functional School, regard primitive society as a faultless structure in which every institution inevitably contributes to the well-being of all the members. There is a vast difference between the concept of a primitive culture as an integrated whole of which every part has a certain "social value" and a social organism in which "all things work together for good". To the functionalist, "social value" is a concept with a negative as well as a positive significance.

No school of anthropologists is so alive to the effect of individual inconsistencies upon the general structure of a primitive culture as the modern functional school and no exponent of this school's method, who has had actual experience in the field, would be so foolish as to make the exaggerated claim that a primitive culture is an example of a perfect system. Equally, no such worker could possibly return from the field without being confirmed in the opinion that the culture which he has studied represents anything else but an integrated whole, the correct functioning of which rests on well recognized social laws.

Mr. Williams has compounded a most provocative paper, and the reviewer warmly commends it to all interested in anthropological technique. His position is fairly clearly set out in the following sentences. "I do not for one moment suggest that culture is devoid of system. My point is that it is only in part a system. It always remains to some extent a hotch-potch and a sorry tangle."

He congratulates the functionalists upon their contribution to applied anthropology, but hopes that they "might now spend some time in discovering to what extent cultures do not work, or to what extent they work badly". He then discusses the three general tasks of native education: maintenance, expurgation and expansion. Finally, he paints a most illuminating picture of the unfair cultural exploitation of the present-day native. Under present conditions the native cannot help but veer towards a Europeanized way of life. It is the task of the practical anthropologist to see that if the native chooses our way of life he shall be prepared beforehand to take his place in our society and that he shall be given a chance to make something of himself.

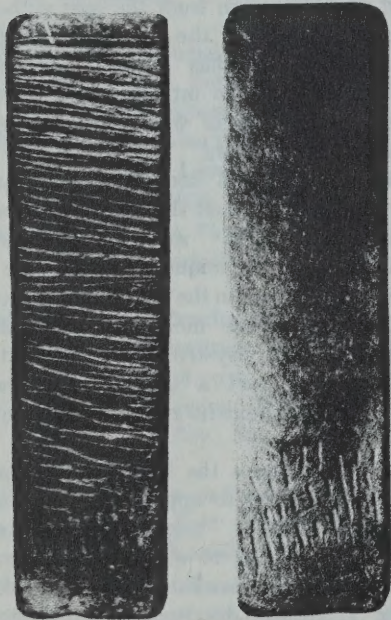
F. L. S. BELL.

NOTES, NEWS AND CORRESPONDENCE

An Aboriginal Engraved Pebble from South Australia.

Sir,

In 1938 the author described and figured eight engraved pebbles found on aboriginal camp sites in South Australia. Most of these had been collected by Mr. H. M. Cooper in the more northern parts of the State.



A

B

Aboriginal engraved pebble, Wirrealpa, South Australia.

This short note describes a particularly well engraved specimen collected by the same gentleman in the Northern Flinders Ranges, about eight miles east of Wirrealpa Station. This, like the other examples, was lying on an old camp site.

The artefact is a naturally weathered pebble, rectangular in both shape and section, 9.1 cm. long, 2.9 cm. wide and 0.8 cm. thick. About three-quarters of one surface

is covered with transverse lines of two widths, one, the narrower, such as might be produced by a stone implement, and the other, much wider and similar in width and depth to those seen on stone *tjurungas*. It is probable that the incisor teeth of one of the smaller marsupials was the cutting tool employed.¹ The lower portion of the same surface is marked with a group of similar grooves placed at right angles to the upper group. These lines are duplicated on the reverse side of the stone.

I have previously pointed out² that as all engraved pebbles have been found on camp sites, they are probably some form of non-secret message stick.

C. P. MOUNTFORD.

¹ I have seen the aborigines of central Australia engrave their spear-throwers with such tool.—C.P.M.

² Mountford, C. P., *Vic. Field Naturalist*, Vol. LV, p. 145, 1938.

Field Work in South Australia.

The Board for Anthropological Research in the University of Adelaide continues its field studies on the Australian aborigines.

Mr. C. P. Mountford, Honorary Assistant Ethnologist at the South Australian Museum, and Mr. L. Sheard are spending a season in the field making studies of the art of the living aborigines and recording designs painted on rocks and in cave shelters in the country about the Musgrave Ranges. Wireless telegraph reports indicate that they have had a most successful visit to Ayers Rock and are at present undertaking a journey towards the west.

Two reports dealing with the Harvard-Adelaide Universities' Anthropological Expedition of 1938-39, conducted under the auspices of this Board, have been recently published. See under Tindale, N. B. on p. 334 and also *American Journal of Physical Anthropology*, 26, No. 1, 1940.